THE IRISONES ARE NOW *indispensable*

Not so long ago Irisones and Methyl Irisones were used in only a few special products. Now they are *indispensable* in odors of almost every description. And with the widespread increase in their use, quality becomes a matter of the utmost importance!

Givaudan offers a line of the finest qualities obtainable. Our Irisones and Raldeines (Methyl Irisones) are specially produced to give your perfume that body, tone and lift so necessary to a fine product. Their popularity among discriminating perfumers is steadily increasing.

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IRISONES

IRISONE PURE

Very good Irisone for use in perfumery of the cheaper class as well as in soap.

IRISONE ALPHA

Colorless—Highest grade of Irisone Alpha obtainable.

IRISONE ALPHA PRIME

A fine colorless Irisone. Excellent base for medium priced Violet perfume.

IRISONE BETA

Chemically pure—harsher than Alpha. Valuable for fancy bouquets, and very suitable for soap.

IRISONE KETONE

Special quality useful for giving the Alpha and Beta note.

IRISONE FOR SOAP

A special quality for soap manufacturers.

RALDEINES (Methyl Irisones)

RALDEINE "A"

Specially fine floral note. Used in Violet and bouquet types.

RALDEINE SIGMA

Good for soap because of its tenacity. For perfumes or powder perfumes, in the less expensive class, this Raldeine gives a fine Violet note.

RALDEINE DELTA

Exceptionally fine odor, and a great deal of "lift" make this product interesting for powder perfumes.

RALDEINE OMEGA

Sweet and powerful note corresponding to the Methyl Irisone used in expensive perfumes. Raldeine Omega suits the finest perfumes and soaps.

CETONE ALPHA

The alpha isomer of methylionone. Possesses a delicious woody and powdery odor. A truly remarkable product with exceptional purity and which completely out-classes all known methylirisone. It is suitable equally well for powder and cream perfumes.

Buyers' Guide

The firms listed below are reliable sources of supply which we are glad to recommend to our readers.

Absorption Bases
Th. Goldschmidt Corp.
R. W. Greeff & Co., Inc.
Chas. L. Huisking & Co.
Innis, Speiden & Co., Inc.
M. W. Parsons, Imports
Pfaltz & Bauer, Inc.

Alcohol
American Commercial Alcohol Corp.
Commercial Solvents Corp.
Empire Distilling Corp.
A. K. Hamilton
U. S. Industrial Alcohol Co.

Alkaloids
Abbott Laboratories
J. T. Baker Chemical Co.
R. W. Greeff & Co., Inc.
Chas. L. Huisking & Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works
Norwich Pharmacal Co.

Aromatic Chemicals, Essential Oils, Flavors
Budd Aromatic Chemical Co., Inc.
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co., Inc.
Compagnie Duval
Evergreen Chemical Co., Inc.
Felton Chemical Co., Inc.
Benj. French, Inc.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
George Lueders & Co.
Magnus, Mabee & Reynard, Inc.
Naugatuck Chemical
Orbis Products Corp.
Compagnie Parento, Inc.
Edwin Seebach Co.
Geo. Silver Import Co.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.
Van Dyk & Co.
Albert Verley, Inc.

Beeswax
W. H. Bowdlear Co.
Koster-Keunen
Theodor Leonhard Wax Co., Inc.
Orbis Products Corp.
Smith & Nichols, Inc.
Will & Baumer Candle Co.

Botanical Drugs
W. Benkert & Co., Inc.
J. L. Hopkins & Co.
Chas. L. Huisking & Co.
Peek & Velsor, Inc.
S. B. Penick & Co.

Chalk
Industrial Chemical Sales Co., Inc.
John & E. Sturge, Ltd.

Citric Acid
H. J. Baker & Bro.
J. T. Baker Chemical Co.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
Mallinckrodt Chemical Works
McKesson & Robbins, Inc.
Merck & Co., Inc.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.

Cod Liver Oil
W. Benkert & Co., Inc.
Consumers Import Co.
P. R. Dreyer, Inc.
Chas. L. Huisking & Co.
McKesson & Robbins, Inc.
S. B. Penick & Co.

Colors
Ansbacher-Siegle Corp.
Fezandie & Sperrle, Inc.
Interstate Color Co., Inc.
H. Kohnstamm & Co., Inc.
Leeben Chemical Co., Inc.
R. F. Revson Co.

Gums
Paul A. Dunkel & Co., Inc.
Frank-Vliet Co., Inc.
J. L. Hopkins & Co.
Innis, Speiden & Co.
Orbis Products Corp.
S. B. Penick & Co.
Thurston & Braidich
Jacques Wolf & Co.

Lanolin
American Lanolin Corp.
Th. Goldschmidt Corp.
Innis, Speiden & Co.
N. I. Malmstrom & Co.
Pfaltz & Bauer, Inc.

Magnesia
Schofield-Donald Co., Inc.

Medicinal Chemicals
Abbott Laboratories
J. T. Baker Chemical Co.
Benzol Products Co.
Calco Chemical Co.
California Fruit Growers Exchange
Dow Chemical Co.
Heyden Chemical Corp.
Chas. L. Huisking & Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Co.
N. Y. Quinine & Chemical Works
Norwich Pharmacal Co.
Chas. Pfizer & Co., Inc.
Seydel Chemical Co.
Wilson Laboratories

Mineral Oil
M. W. Parsons, Imports
S. Schwabacher & Co.
L. Sonneborn Sons, Inc.
Stanco Distributors, Inc.

Neutral White Soap
J. L. Hopkins & Co.
S. B. Penick & Co.
John Powell & Co.

Private Label
Ehrmann-Strauss Co., Inc.

Stearates
Franks Chemical Products Co.
Mallinckrodt Chemical Works
Orbis Products Corp.
M. W. Parsons, Imports
R. F. Revson Co.

Talc
Innis, Speiden & Co.
Chas. Mathieu, Inc.
Orbis Products Corp.
R. F. Revson Co.

Zinc Oxide
Innis, Speiden & Co.
New Jersey Zinc Co.
Orbis Products Corp.
R. F. Revson Co.

Containers & Machinery

Applicators and Droppers
Glass Products Co.
A. C. James & Co.
Penn. Glass Products Co.

Bottles & Jars
Carr-Lowrey Glass Co.
Glass Products Co.
Hagerty Bros. & Co.
Hazel-Atlas Glass Co.
A. C. James & Co.
Maryland Glass Corp.
Owens-Illinois Glass Co.
Swindell Brothers, Inc.

Boxes & Cartons
Karl Voss Corp.
Young Bros., Inc.
Douglas Young, Inc.

Caps
Aluminum Seal Co.
Anchor Cap & Closure Corp.
Armstrong Cork Products Co.
Bridgeport Metal Goods Mfg. Co.
Dodge Cork Co.
General Plastics, Inc.
Ferd. Gutmann & Co.
Phoenix Metal Cap Co.

Collapsible Tubes
National Collapsible Tube Co.
New England Collapsible Tube Co.
White Metal Mfg. Co.

Corks
Armstrong Cork Products Co.
Dodge Cork Co.

Cosmetic Cases
Bridgeport Metal Goods Mfg. Co.

Glassine Paper
Riegel Paper Corp.

Labels
John Horn

Machinery (Packaging)
John W. Ayers & Son (Pill & Tablet)
Arthur Colton Co. (Tube & Tablet)
Economic Machinery Co. (Labeling)
Pneumatic Scale Corp., Ltd. (Capping & Labeling)
Geo. G. Rodgers Co. (Tube)
F. J. Stokes Machine Co. (Tube & Tablet)
Stokes & Smith Co. (Powder)
U. S. Bottlers Machinery Co. (Bottle)

Machinery (Production)
Abbe Engineering Corp.
Alsop Engineering Corp.
Ertel Engineering Corp.
Highest Grade Machinists, Inc.
Manton-Gaulin Mfg. Co.
New England Tank & Tower Co.
Pfaudler Company
George G. Rodgers Co.
Chas. Ross & Son Co.
F. J. Stokes Machine Co.

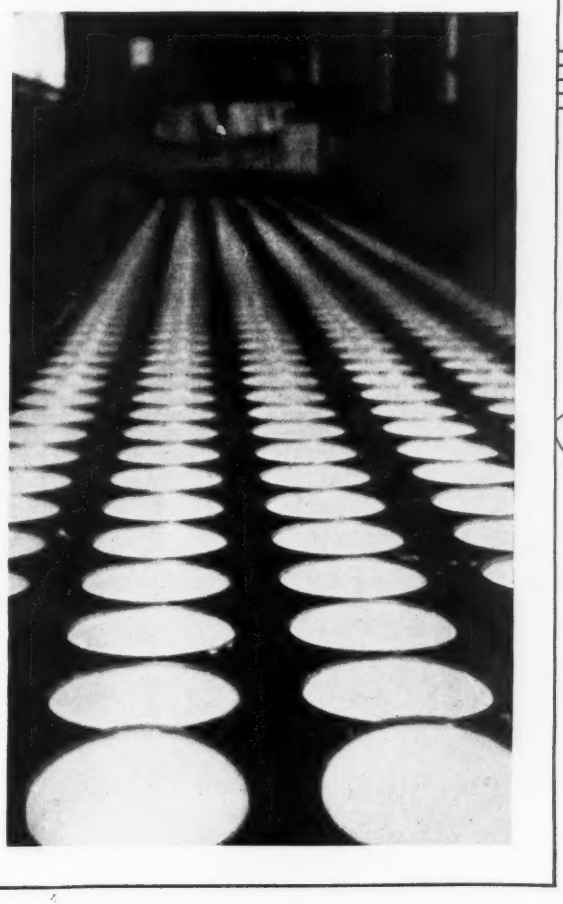
Machinery (Used)
Consolidated Products Co.
Stein-Brill Corp.

Packing Material
Kimberly-Clark Corp.

Plastic Materials
General Plastics, Inc.

Tanks, Kettles
Alsop Engineering Corp
Ertel Engineering Corp.
Pfaudler Company

Vials
Kimble Glass Co.



SUN BLEACHED BEESWAX

Melted wax in pans. This wax hardens by the time the pan reaches the end of this rolling conveyor, where they are ejected ready for packing and shipping.

IN this series we have shown how a pure, U. S. P. uniform grade of beeswax, ideally suited for cosmetic purposes, has been purified and bleached by the sun.

Selected crude has been melted and gross impurities removed. The wax has been shredded and exposed for three full weeks, with constant turning, to the sun. It has again been melted and shredded and again bleached in full sunlight for three weeks. It is now ready for the cosmetic manufacturer, and the shredded wax is melted and fed to the discing machine, where the convenient, uniform discs so generally used by cosmetic manufacturers are formed.

Many visitors have been made welcome at our American establishment at Sayville, Long Island. There they have seen, during the bleaching season from April through October, each of these processes in continuous operation, producing the Koster Keunen sunbleached beeswax used with such uniform satisfaction by so many American manufacturers.

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KOSTER KEUNEN

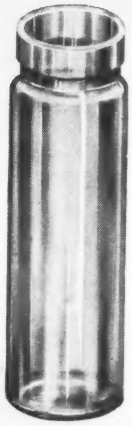
◆ *SUNBLEACHED and YELLOW BEESWAX* ◆

SAYVILLE (Long Island) NEW YORK

IRRESISTIBLE

—when packaged in

KIMBLE VIALS



There is something remarkably appealing — some unusual urge to BUY — about an article that is packaged in a lustrous Kimble Glass Vial. It may be the fact that each vial plays the part of a miniature show-window, revealing the contents with greatest eye-appeal. It may be the fact that sparkling, lustrous glass itself denotes the height of purity and perfection. Or it may be the convenient pocket or handbag size — the daintiness — of the vial-packed article that gives it front-row space on counters and shelves.

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We manufacture and offer the highest grades of U. S. P. White Oils obtainable. They are absolutely odorless, tasteless and colorless.

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These oils have for years set the standard for the best in White Oils. PRIMOL for Pharmaceutical purposes and WYROL and MARCOL for COSMETIC and TOILET Preparations are used throughout the world by the manufacturers of the finest preparations.

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Lily White Parmo No. 3F	105/110
Cream White Parmo.....	115/120
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WHITE OILS
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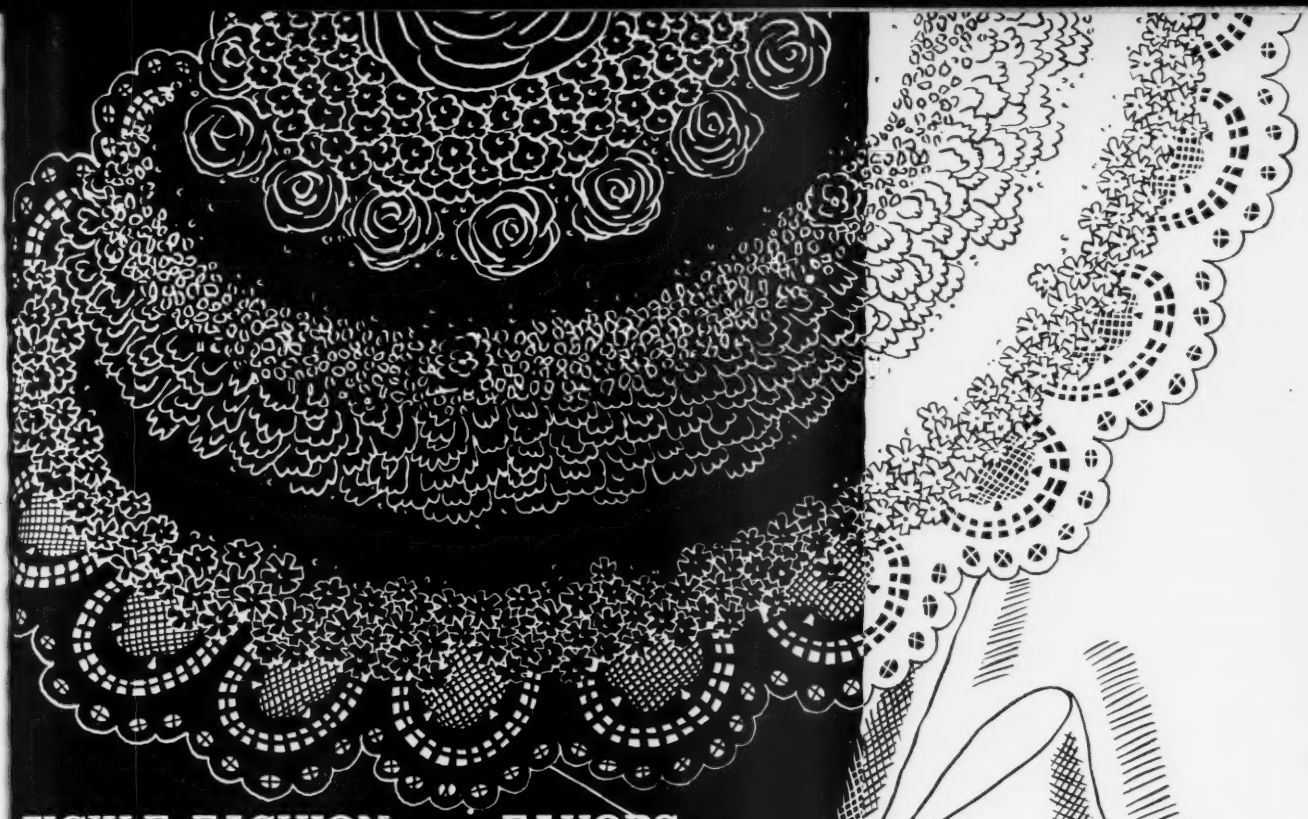

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a forgotten ALBERT VERLEY *creation*

Floranteme "V"

The **modern note** in perfumery for 1935 is the unique flowery appeal of this **old-time favorite.** • It is impossible to single out the fragrance of any one flower in this intriguing combination. The effect is that of a fresh bouquet — keen, but elusive. • The recurring cycle of Fashion points to Floranteme "V" as a keynote for 1935 successes. » » »

ALBERT VERLEY, INC., 11 East Austin Avenue, Chicago, Ill.
114 East 25th Street, New York—Mefford Chemical Co., Los Angeles

TECHNIQUE

Floranteme "V" is to be used in any bouquet where the floral note should be enhanced. It improves Lilac, Rose, Jasmin, and Lily, and blends well with any type of floral odor. • It is marvelous as a cream odor, a perfume, or a toilet water.

ALBERT VERLEY *aromatics*

HUISKING Passes

1910

This is the building which the company occupied until 1931. The address, 5 Platt Street, became world-famous as a center of drug and chemical commerce during the hectic days of the World War.

The new, modern building at 155 Varick Street, New York, N. Y., which today houses the manifold activities of the Huisking organization. The company moved here from 5 Platt Street in 1931.

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Quarter Century

1935

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In order to have lived for a quarter of a century during twenty-five such drama-filled years, an organization must have been guided by high ideals of dependability and service.

Now, as Charles L. Huisking & Company celebrates its twenty-fifth anniversary, it is the firm resolve of the founders and their co-workers to carry on in the same spirit which has characterized its policies in the past. At the same time, the company wishes to thank its host of friends and customers everywhere whose continued confidence in the company and in its ideals has made this quarter century of business achievement possible.

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THE MANUFACTURE OF C. P. CHEMICALS

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- Mixing of lotions
- Extraction of vanilla and other flavorings
- Vacuum distillation of chemicals
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- Manufacture of C. P. chemicals
- Evaporation of salts
- Storage of elixirs, antiseptics, etc.
- Treatment of biologicals.
- Concentration of acids and solvents
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THE advantages of glass lined steel are best appreciated by users of this equipment. Here is the experience of one important Chemical Company.

"Monsanto specifications which, in many cases, far exceed U. S. P. standards, require practically complete freedom from "heavy metals". This degree of purity can best be accomplished by processing in glass enameled equipment.

"Also, in cases where organic syntheses are adversely influenced by presence of metallic salts, glass enameled processing tanks find an important use.

"Again, there are manufacturing processes in which acid mixtures, corrosive to all known metals, are often employed at temperatures where ceramic materials or rubber cannot be used. Here, glass enameled equipment performs admirably.

"For many years we have been using Pfaudler glass enameled equipment for purposes such a just described and have found it satisfactory."

This is the experience of but one of hundreds of users of Pfaudler Equipment. Why not send for your copy of our latest catalogue "Glass Lined Equipment for the Drug and Cosmetic Industry"?

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Calco **CALCO** Calco

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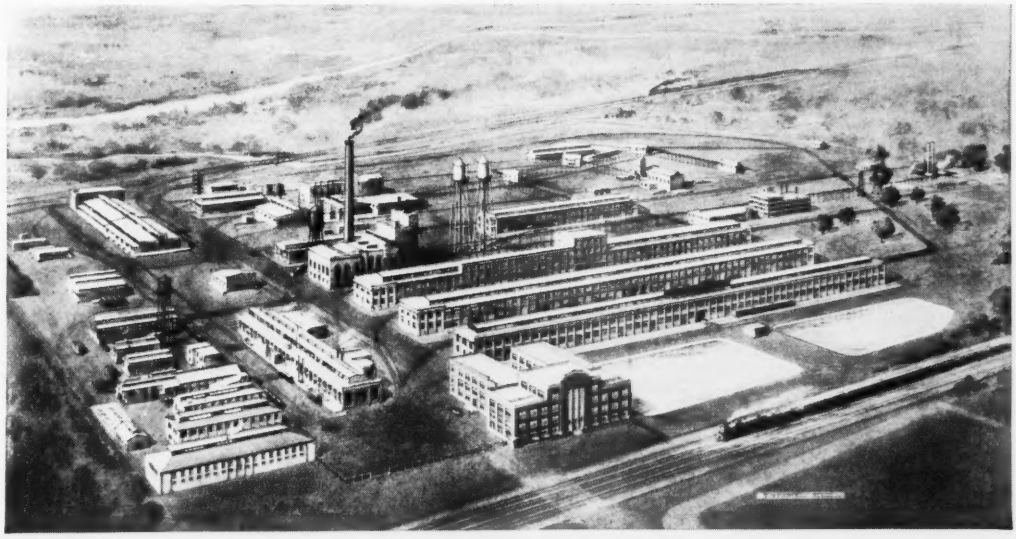


THE CALCO CHEMICAL CO., INC.

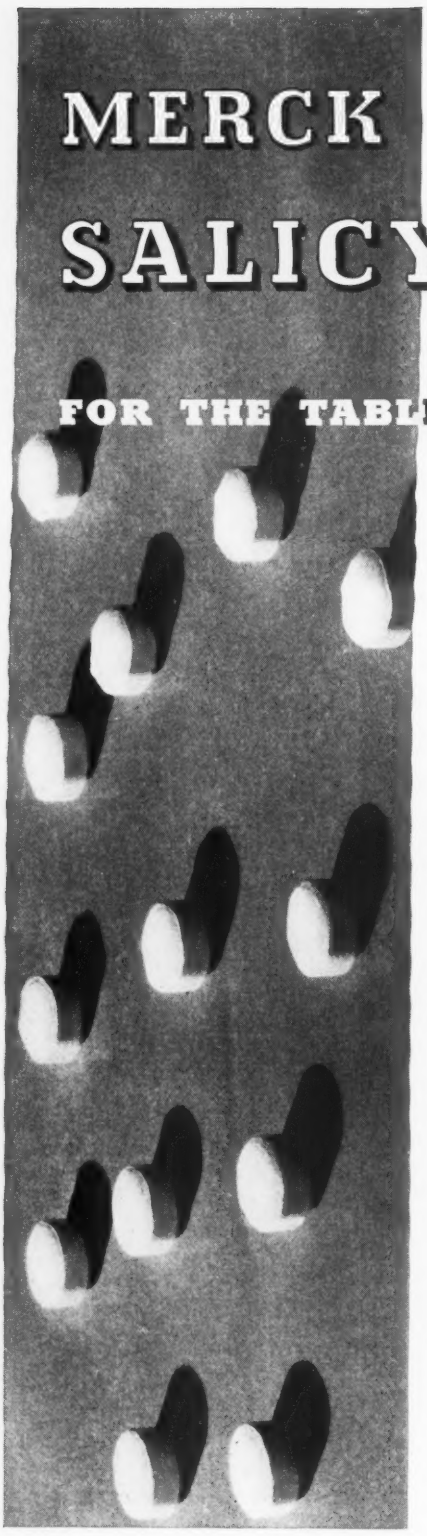
PHARMACEUTICAL DIVISION

BOUND BROOK, N. J.

A DIVISION OF AMERICAN CYANAMID COMPANY

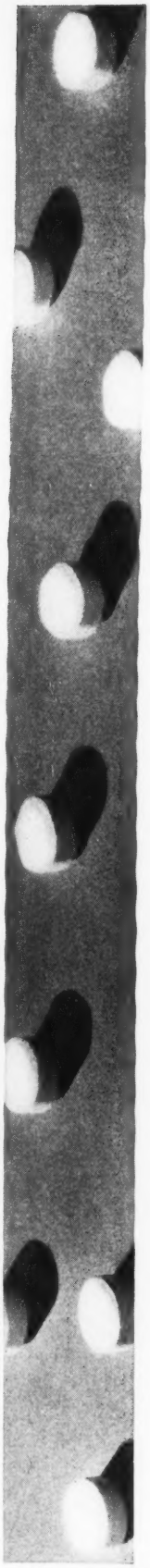
MERCK
SALICYLATES

FOR THE TABLET MANUFACTURER



Tablet manufacturers have a variety of requirements. In preparing aspirin tablets, for example, some manufacturers prefer to make their own starch granulation and consequently use Merck Acid Acetylsalicylic, U.S.P. Fine Crystals. Others employ Merck Starch Granulations, prepared ready for direct feeding to the machines, in either the 10%, 16% (new) or 20% mixtures. Experienced tablet makers know that the Merck product gives no trouble such as pitting, sticking, splitting or capping. In making tablets from Merck Starch Granulations, freedom from development of Acetic Acid odor is assured. When the finished tablets are placed in water, disintegration starts immediately. Furthermore, the particles are fine and soft, an important factor when the finished product is used for gargling.

Sodium Salicylate Merck (U. S. P. Crystals Free Flowing) has been preferred by druggists and manufacturers alike for many years. Rapid solubility, permanence of color, and freedom from caking are some of its outstanding qualities. The Merck Powder, U. S. P. is excellently adapted to straight tablet and compound tablet manufacture. If you are not using these high quality Merck products we invite you to request samples for examination.



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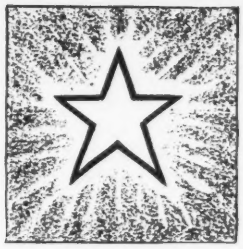


the season's greetings

and best wishes for

1935

FRITZSCHE *Brothers, inc.*

MODERN COSMETICS

is now regarded as an indispensable reference work for those engaged in the manufacture of cosmetics. Its four hundred pages of practical, usable information for the manufacturer of cosmetics is the result of more than a year's work carefully compiling and checking information. This is the first practical manual for the manufacturer, covering every phase of cosmetic production. It will be found particularly valuable to the manufacturer with limited technical training.

Contemporary Comment

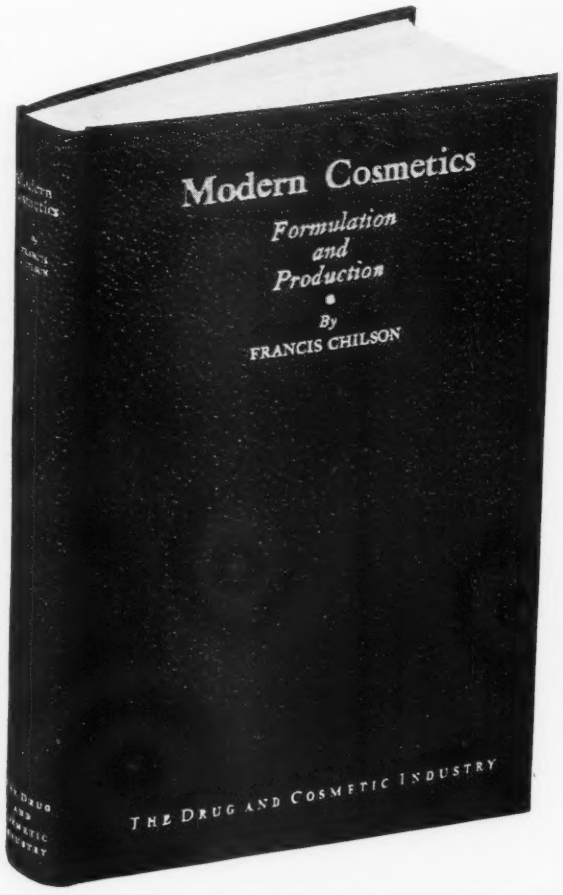
"It is the purpose of this book to provide both those who possess and those who lack a chemical training with a knowledge of the composition and manufacture of cosmetic products. It is in no sense a treatise on the cosmetic industry, but deals comprehensively with production, giving, in addition to modern formulae, detailed instructions on manufacturing procedure.

"In the forty-six sections into which the book is divided, practically every class of product coming within the scope of the industry receives attention. The opening section, for instance, deals with the classification, basic types, consistencies and methods of manufacture of all the groups that come within the category of 'Cosmetics'—emulsions, solutions, soaps, pastes, powders, sticks, jellies, suspensions, mucilages, cakes and oils. Information is also given here as to the equipment to be employed in each case. Succeeding chapters treat in greater detail various types of face powders, creams, shaving preparations, deodorants, depilatories, astringent and other lotions, hair tonics, shampoos and the like, while an entire section is devoted to miscellaneous cosmetics of the kind that cannot be easily classified.

"While the cosmetic industry remains in an empirical state and one in which the personal factor largely enters, irreconcilable differences of opinion regarding the properties of any given cosmetic will always be in evidence. For this reason the author has not attempted to differentiate between the formulae, but has presented a number of different types for the examination and approval of the individual experimenter. He suggests that all the formulae given for each specific product should be tested, since in this way the experimenter is assured of finding that which, according to his conception of the ideal, will most adequately fulfill his requirements."

—H. R. G. in "The Soap, Perfumery and Cosmetics Trade Review."

PRICE: $6.00



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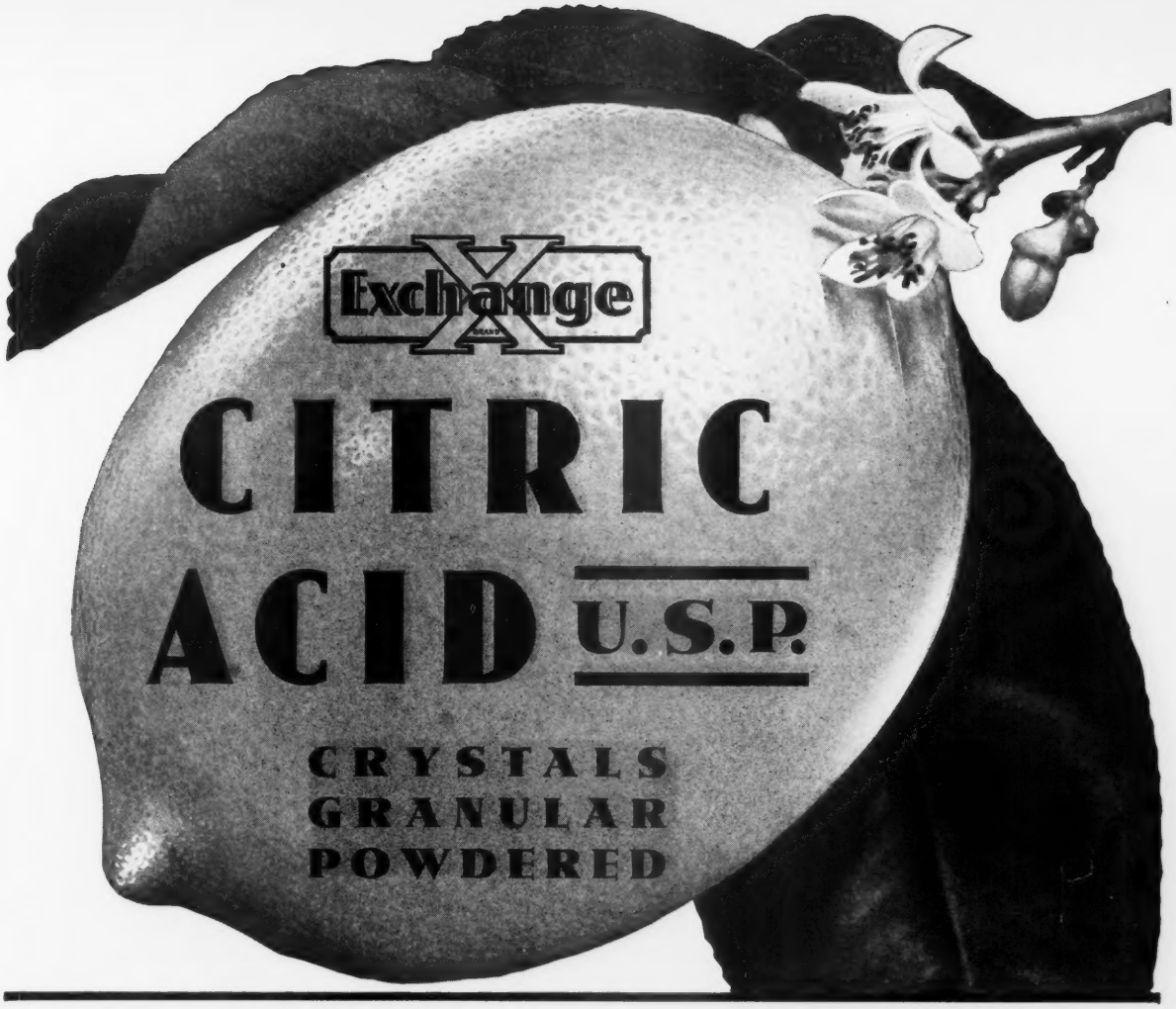


MADE FROM AMERICAN LEMONS

by the Exchange Lemon Products Company of Corona, California. Backed by the Sunkist group of 13,200 citrus growers—largest in the world.

Immediate shipments from warehouse stocks in New York, Chicago and Philadelphia. For prices on kegs, barrels or carloads, consult any of the following distributors:

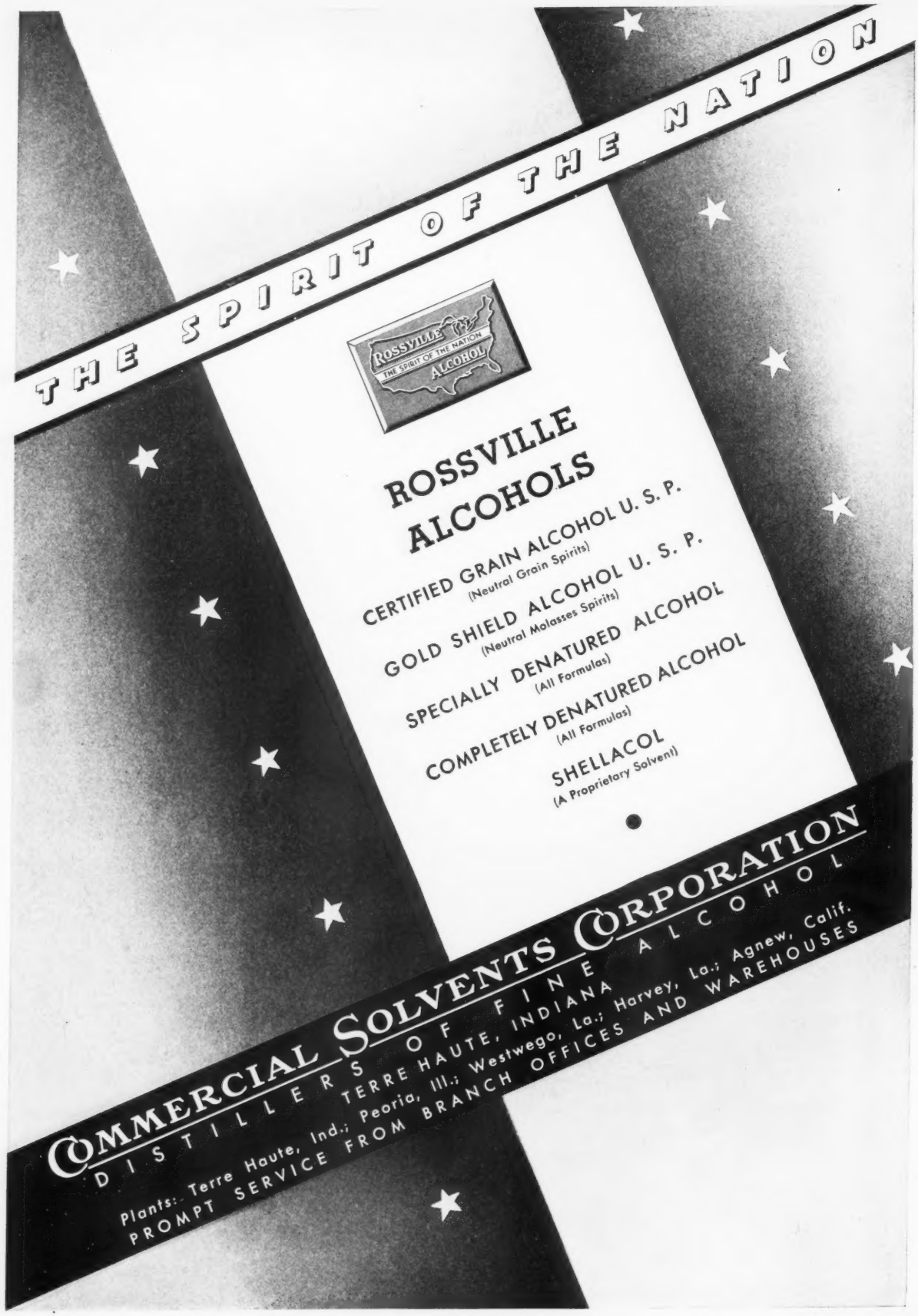
NRA MEMBER U.S. WE DO OUR PART

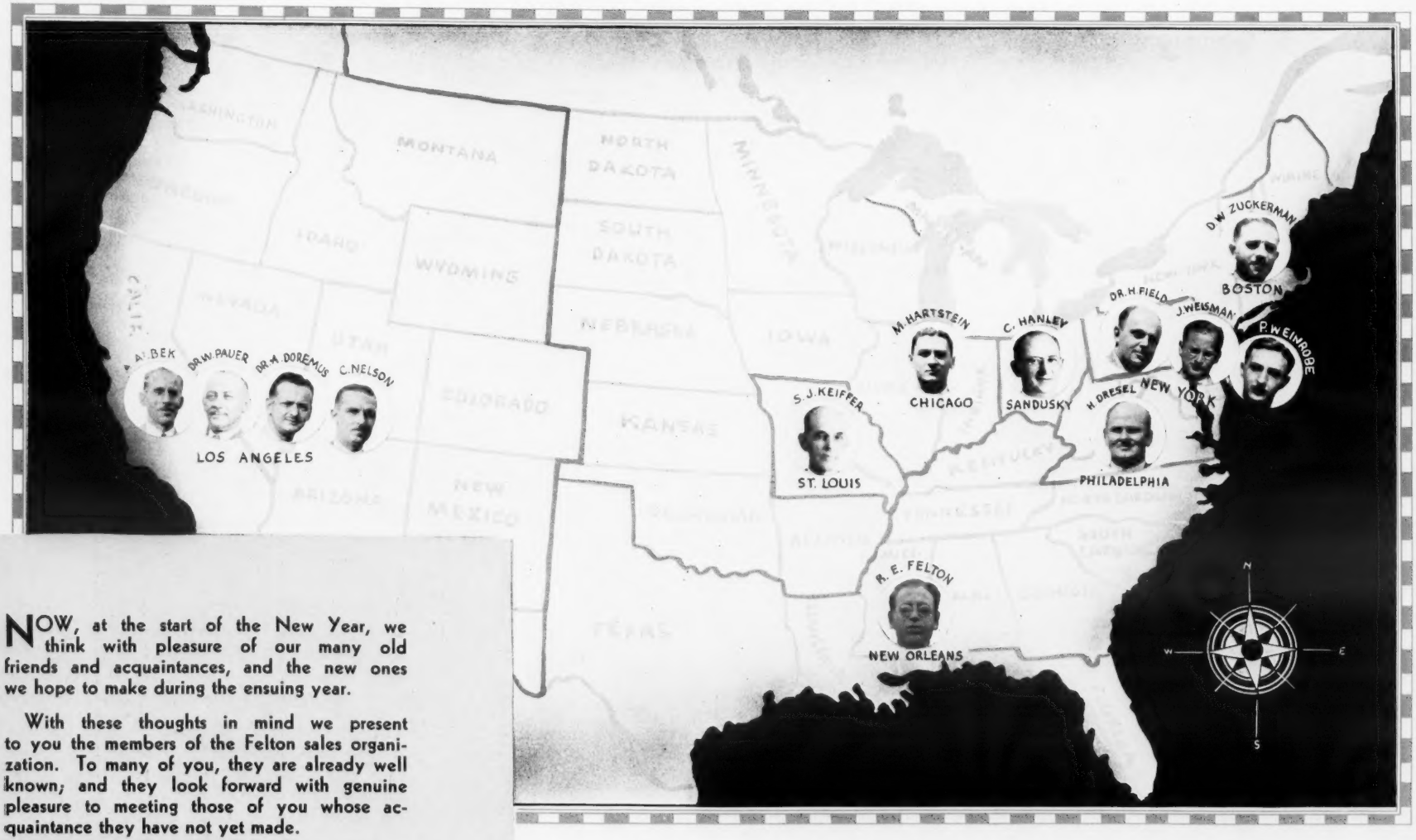
DISTRIBUTED EAST OF THE ROCKIES BY

Mallinckrodt CHEMICAL WORKS, St. Louis, Philadelphia, New York, Chicago.
J. T. BAKER CHEMICAL COMPANY, Phillipsburg, New Jersey.
DODGE & OLCOTT COMPANY, 180 Varick Street, New York.
NEW YORK QUININE & CHEMICAL WORKS, 101 North 11th Street, Brooklyn, New York.
SWANN CHEMICAL COMPANY, Birmingham, Alabama.
THE HARSHAW CHEMICAL COMPANY, Cleveland, Ohio.
CALVERT ANILINE & CHEMICAL CO., 225 Walnut Street, Cincinnati, Ohio.
THOMPSON-HAYWARD CHEMICAL CO., 29th & Southwest Boulevards, Kansas City, Missouri.

PACIFIC COAST SERVED BY

Products Department—CALIFORNIA FRUIT GROWERS EXCHANGE, Ontario, California


THE SPIRIT OF THE NATION
ROSSVILLE
THE SPIRIT OF THE NATION
ALCOHOL
ROSSVILLE ALCOHOLS
CERTIFIED GRAIN ALCOHOL U. S. P.
(Neutral Grain Spirits)
GOLD SHIELD ALCOHOL U. S. P.
(Neutral Molasses Spirits)
SPECIALLY DENATURED ALCOHOL
(All Formulas)
COMPLETELY DENATURED ALCOHOL
(All Formulas)
SHELLACOL
(A Proprietary Solvent)
COMMERCIAL SOLVENTS CORPORATION
DISTILLERS OF FINE ALCOHOL
Plants: Terre Haute, Ind.; TERRE HAUTE, INDIANA
Peoria, Ill.; Westwego, La.; Harvey, La.; Agnew, Calif.
PROMPT SERVICE FROM BRANCH OFFICES AND WAREHOUSES



NOW, at the start of the New Year, we think with pleasure of our many old friends and acquaintances, and the new ones we hope to make during the ensuing year.

With these thoughts in mind we present to you the members of the Felton sales organization. To many of you, they are already well known; and they look forward with genuine pleasure to meeting those of you whose acquaintance they have not yet made.

These men, all possessing wide experience in the aromatic, perfume and flavor fields, are ready to serve you at all times, to the best of their ability. They are prepared to assist you with your problems, supported by the comprehensive technical facilities of the Felton Chemical Company. We hope you will let them cooperate with you.

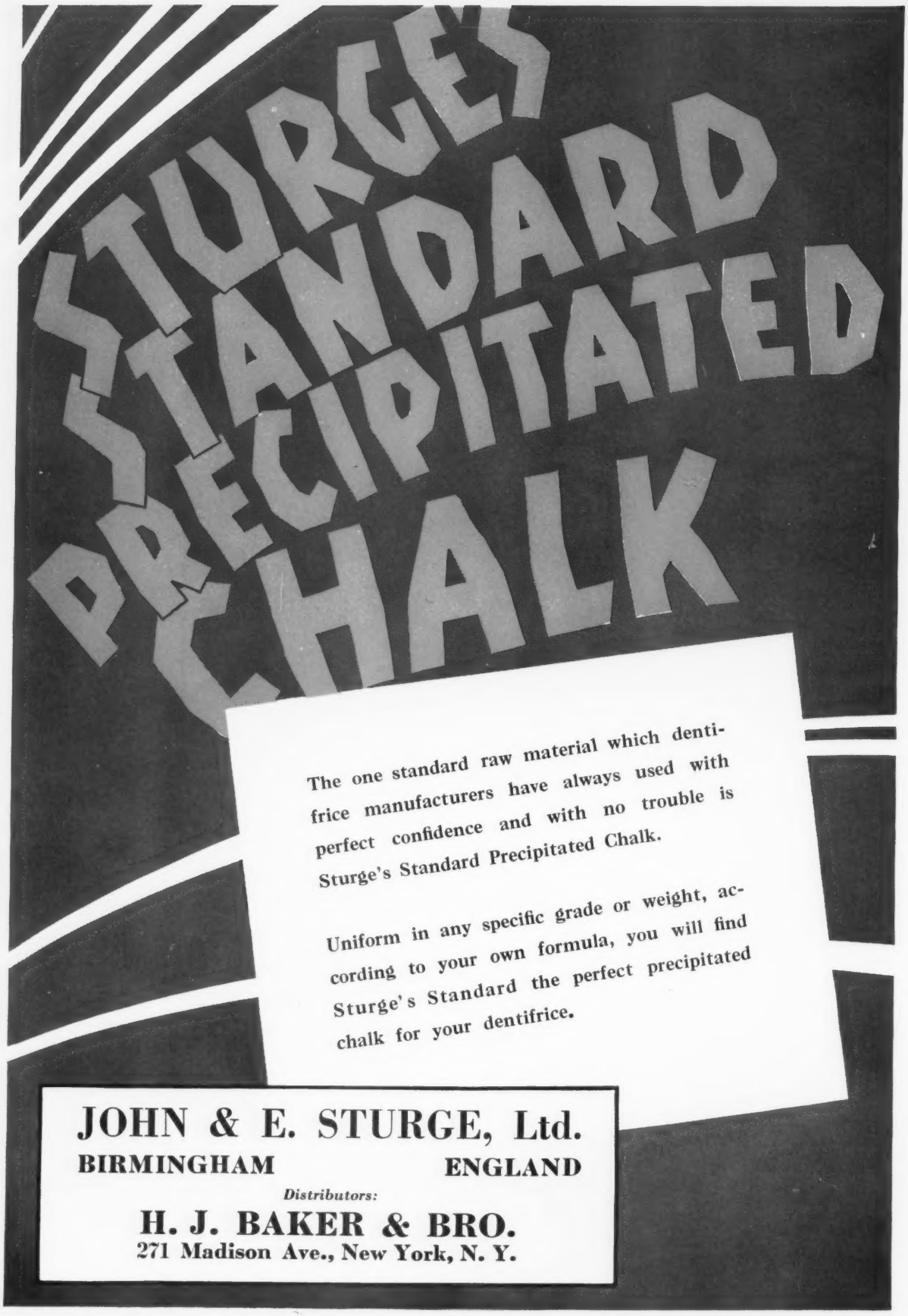
FELTON CHEMICAL COMPANY

INCORPORATED

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Executive Offices and Factory: 603 JOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass.	Philadelphia, Pa.	Sandusky, Ohio	Chicago, Ill.	St. Louis, Mo.	New Orleans, La.	Los Angeles, Calif.
80 Boylston St.	200 So. 12th St.	1408 W. Market St.	1200 N. Ashland Ave.	245 Union Blvd.	Balter Bldg.	515 So. Fairfax Ave.



The one standard raw material which dentifrice manufacturers have always used with perfect confidence and with no trouble is Sturge's Standard Precipitated Chalk.

Uniform in any specific grade or weight, according to your own formula, you will find Sturge's Standard the perfect precipitated chalk for your dentifrice.

JOHN & E. STURGE, Ltd.
BIRMINGHAM ENGLAND

Distributors:

H. J. BAKER & BRO.
271 Madison Ave., New York, N. Y.

THE warm reception accorded by perfumers to the first product of our new series of Radionde recently announced was so spontaneous that we are now introducing our

RADIONDE OMEGA

Radionde Lambda is particularly useful in perfumes of flowery character while the new product, *Radionde Omega*, is of especial value in bouquets and in the heavier types of perfumes so popular at present.

Trade Mark

ROURE-BERTRAND FILS & JUSTIN DUPONT

GRASSE PARIS ARGENTEUIL

Sole Representative in the United States and Canada:

GEORGE SILVER IMPORT COMPANY
461 Fourth Avenue New York
CHICAGO: 722 West Austin Ave. (Phone: HAYmarket 0991)
LOS ANGELES: 819 Santee St., Room 622 (Phone: TUcker 6453)

Monsanto

Acetanilid U.S.P. — Acetphenetidin U.S.P.

Aspirin (Acetyl Salicylic Acid U.S.P.) and Starch Granulations

Aspir-Gran — Benzoic Acid U.S.P.

Caffeine U.S.P. — Chloral Hydrate U.S.P.

Chloramine U.S.P. — Glycerophosphates

Phenol U.S.P. — Phenolphthalein U.S.P.

Salicylates — Sodium Acetate U.S.P.

Sodium Benzoate U.S.P.

Chemicals

CHEMICALS OF QUALITY Monsanto ST LOUIS USA

Manufactured by

Monsanto Chemical Company

ST. LOUIS, U.S.A.

CHEMICALS OF QUALITY Monsanto ST LOUIS USA

Empire State Bldg. NEW YORK · Everett Station BOSTON · 500 No. Dearborn CHICAGO · 373 Brannan St. SAN FRANCISCO · 378 St. Paul St., West MONTREAL · Victoria Station House Victoria St. LONDON

Naugatuck

presents

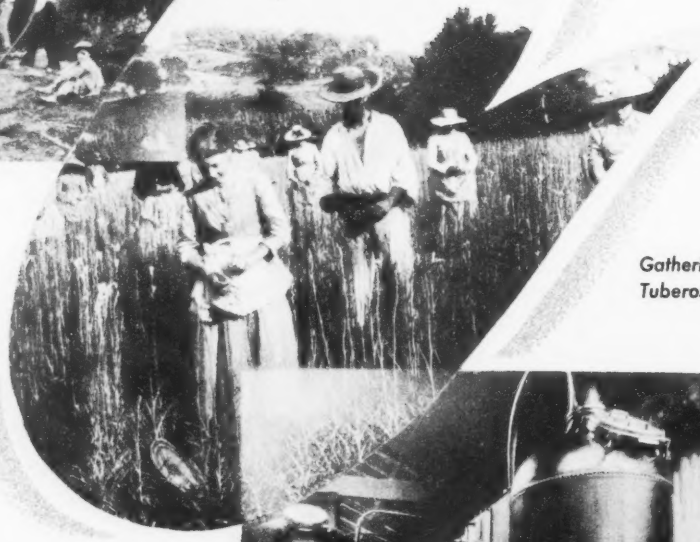
★ BRUNO COURT GRASSE FRANCE

★ C. A. P. P. CASABLANCA MOROCCO

★ LABORATOIRES LOUIS BORNAND PARIS

BRUNO COURT

Distillation of Lavender in the Alps



Gathering Tuberoses

The history of the manufacture of perfumery, cosmetics and soaps would be quite incomplete if it did not include the progressive efforts made in obtaining the basic odors from plants and flowers cultivated on the slopes of the Alpes Maritimes. Such a record would undoubtedly include the name of Bruno Court for this house has been producing "Essences and Extractions" at Grasse, France, since the year 1812.

While their present facilities admit of the most modern method for the production of Essential Oils and the Flower Absolutes and Resinoids by the Hydrocarbon Process, they have also remained steadfast in their belief that the "old fashioned" pomades and the liquid floral absolutes made from them represents the perfume of the living flower "more faithfully." The present demand for these particular raw materials seems to confirm their opinion.

Extraction Plant

Some of their specialties include —

Essential Oils . . . Oil Lavender
Oil Geranium sur Roses
Oil Neroli Bigarade Petale

Resinoides . . . Labdanum
Oak Moss
Orris Florentine

Flower Absolutes . . . Jasmin
Rose
Violet

A complete list of Bruno Court products will be sent on request

The object of this corporation is to cultivate and produce natural perfumery raw materials of dependable quality in those Colonies so geographically situated as to assure a year round climate free from such rigorous changes that prevent a dependable harvest. This has proved to be an important factor in stabilizing prices from year to year.

With their main office at Casablanca (Morocco) they have made marked progress in acquiring large tracts of land, building distilling and extracting works and establishing their own branches in Seba-Aioun (Morocco), Labé-Nadel and Sala (French Guinea), Addis-Abeba (Abyssinia), Nossi-Bé and Kenya.

They are now producing and shipping —

ESSENTIAL OILS
- Oil Sweet Orange
- Oil Cedrus Atlantica
- Oil Ylang-Ylang
- Oil Neroli
- Oil Geranium
- Oil Petitgrain from Sweet Orange
- Oil Petitgrain from Lemon tree
- Etc., etc.

TERPENELESS OILS
- Oil Sweet Orange
- Oil Cedrus Atlantica

FLOWER PRODUCTS
- Rose (Absolute, Concrete and Otto)
- Mimosa (Absolute and Concrete)
- Karo Karoundé (Absolute and Concrete)
- Auropanax (Resinoid)

MISCELLANEOUS
- Oak Moss (Absolute and Concrete)
- Civet

We invite your inquiries and orders for C.A.P.P. products

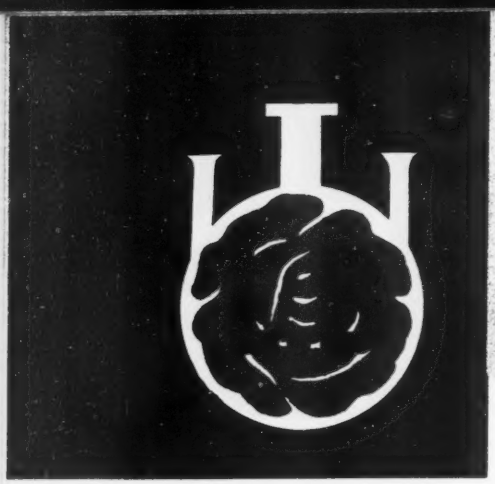
Gathering Orange Blossoms in Morocco

Cedrus Atlantica in Morocco

Growing Roses in Morocco

C. A. P. P.

CIE. AFRICAINE DES PLANTES À PARFUM



LABORATOIRES ★ LOUIS BORNAND

Among the aromatic chemicals originally produced by LOUIS BORNAND are —

NOVOTONKA — true odor of the tonka bean, non-irritating.

DIASMOL — an important note in natural Jasmine.

DIMETHYLOCTANOL — one of the higher notes in natural Rose.

ENOLIAL — new aldehyde for modern perfumery.

Write for a sample of Polémonia (Bornand)

The purpose of these laboratories is to search for new and unusual aromatic chemicals and continue such investigation to include their use in combinations to produce new odor notes. They have made noticeable contributions to both the science and art of modern perfumery and their products have become outstanding.

This affiliation will enable Naugatuck Chemical to increase the number of fine aromatic chemicals now being made at their factory, and also furnish helpful information to their American customers.

Naugatuck AROMATICS

NAUGATUCK CHEMICAL . . . situated at Naugatuck, Connecticut, is representative of the finest type of research and development in many branches of the organic chemical industries.

The desire to create further uses for available intermediates and raw materials lead them into the aromatics field.

As the result of successful research and development in the field, a line of Naugatuck Aromatics is offered.

In order to put themselves in a position to supply a complete line of aromatics to American consumers, Naugatuck Chemical has arranged to complement their line with the products of these progressive foreign producers.

It has always been the policy of Naugatuck Chemical to handle the highest grade products of stabilized quality and at stabilized prices. This policy will continue.

Aromatic products supplied by Naugatuck Chemical will be truthfully labelled.

Naugatuck Chemical

DIVISION OF UNITED STATES RUBBER PRODUCTS, INC.

1790 BROADWAY NEW YORK, N. Y.

ANTI·COUNTERFEIT

An Economical Alseco Seal will Protect Your Profits!

● No one knows exactly the percentage of total retail sales of popular, quality products represented by counterfeits. But if YOUR product is protected with one of the forms of Alseco Anti-Counterfeit Seals you *do* know that all of the profits YOUR brand name earns come direct to YOU.

For these pirates will avoid YOUR product. These Seals can only be applied in your plant, with the special machines we furnish. Your bottles cannot be opened without leaving evidence.

Furthermore, only the patented Alseco *rolling-on* method assures an easily removed top, yet capable of holding a vacuum.

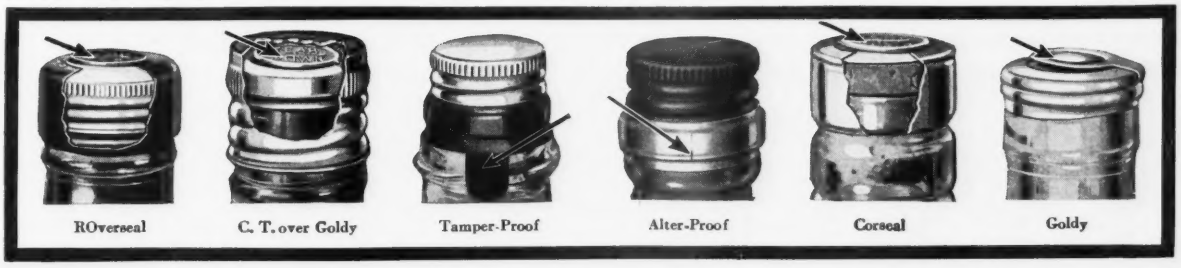
Alseco Seals are made in a variety of sizes and types, for every need. They can be beautifully embossed and lithographed. Being made of Aluminum, they cannot contaminate.

There are many more advantages you will want to know about. Write ALUMINUM SEAL COMPANY, NEW KENSINGTON, PA.

TRADE MARK ALSECO SEALS REG. U. S. PAT. OFF.

Alseco SEALS AND SEALING MACHINES

ANTI-COUNTERFEIT SEALS OF MANY TYPES



TOP LINE -- *BOTTOM* PRICE

Specials for the manufacturer of low-priced goods. Just what the name implies—"*Top Line*"—they're real perfume oils that help sell preparations. And at bottom prices.

ASK for SAMPLES

FOR CREAMS—*Use 3 oz. or more to 100 lbs.*

Top Line Rose	$2.50 lb.
Top Line Lilac	2.50 "
Top Line Bouquet	2.50 "
Top Line Sweet Pea	2.50 "

—and others—

FOR TALC—*Use 2 oz. or more to 100 lbs.*

Top Line Rose	$2.50 lb.
Top Line Orange	2.50 "
Top Line Carnation	3.50 "

—and others—

FOR POMADE—*Use 2 oz. or more to 100 lbs.*

Top Line Oriental	$3.00 lb.
Top Line Southern	3.00 "

—and others—

FOR HAIR OIL—*Use ⅛ oz. or more to gallon.*

Top Line H.O. Rose	$2.50 lb.
Top Line H.O. Lilac	2.50 "
Top Line Kleen	2.50 "

—and others—

FOR TOILET WATER—*Use one ounce or more to gallon.*

Top Line Lavande	$3.50 lb.
Top Line Cologne	3.00 "
Top Line Fougere	4.00 "
Top Line Oriental	3.00 "

—and others—

van Ameringen-Haebler, Inc.

Manufacturers and Importers of

Aromatic Essentials

Flavor Materials, Aromatic Chemicals
Essential Oils, Perfume Specialties

315 FOURTH AVENUE, NEW YORK

180 North Wacker Drive, Chicago 438 W. 48th Street, Los Angeles 42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

100 CORKS . . . 5 QUALITIES . . . AND ALL FROM THE SAME PIECE OF CORKWOOD

FROM a single piece of corkwood come corks of all qualities—some of the best and some of the poorest grades. It's up to Armstrong's sorters, schooled by years of experience, to separate all these corks into their proper grades, so that the buyer is certain to get the grade he orders.

After careful sorting, Armstrong's Corks are checked by veteran inspectors . . . and when an Armstrong inspector slips his "O. K." into the bag, it's a safe bet that the corks are up to grade.

The best corkwood, hand-picked by Armstrong's own men in the cork forests . . . the finest machinery available for manufacture . . . and long-experienced cork sorters—these are the factors that assure the quality of Armstrong's Corks.

FREE BOOK!

PASTE ME ON A PENNY POST CARD

and send to Armstrong for "A Buying Guide to Armstrong's Closures," the booklet that gives the complete story of Armstrong's broad line of closures.

Armstrong Cork Products Co., Closure Division, 913 Arch St., Lancaster, Pa.

Name .....

Street .....

City .....

State .....

Armstrong's **CORKS**

MALLINCKRODT COSMETIC CORNERSTONES

The wise manufacturer protects himself—and it is only business common sense—by using standard, pure chemicals in the making of his cosmetics. A vast number rely, and rightly so, on Mallinckrodt chemicals for finer, purer cosmetics, because they know that for almost three quarters of a century Mallinckrodt chemicals have set a high standard for purity and fineness.

MALLINCKRODT COSMETIC CORNERSTONES

Among the fifteen hundred and more chemicals that are manufactured by Mallinckrodt, there are several that have fundamental characteristics that make them useful for cosmetics. These chemicals are known as Cosmetic Cornerstones, and are carefully manufactured to be free from all harmful impurities. Mallinckrodt Cosmetic Cornerstones are unsurpassed for quality—assuring high quality products—more sales—more repeat business—at no greater cost.

For Smoother, Purer Creams, Face Powders, etc.
ZINC STEARATE MALLINCKRODT

Absolutely gritless and white. Finer than 300 mesh. Makes powders cling better and spread evenly. Packaged in dust-proof containers.

For Purer Deodorants
ALUMINUM CHLORIDE MALLINCKRODT

Affords perfectly clear solutions. No filtering necessary—saving time, labor and material.

For More Effective Depilatories
BARIUM SULPHIDE MALLINCKRODT

Pale yellow in color. Assays 90%-95% pure. Packed in air-tight containers.

Where Silver Nitrate is Required
SILVER NITRATE MALLINCKRODT

Made from Virgin Silver and chemically pure Nitric Acid. At least 99.9% pure.

OTHER MALLINCKRODT COSMETIC CORNERSTONES—Potassium Sulphite, Acid Tannic, Acid Salicylic, Ammonium Carbonate, Borax, Resorcinol, Quinine Sulphate, Bismuth Subnitrate, Hydrogen Peroxide, Potassium Hydroxide, Sodium Benzoate, Magnesium Stearate.

Send for samples and descriptive literature, on your letterhead

CHEMICAL Mallinckrodt WORKS

ST. LOUIS • CHICAGO • PHILADELPHIA • NEW YORK • MONTREAL • TORONTO

FINE COSMETIC CHEMICALS

Fixed Prices

WHAT the actual results of price-fixing are under several of the various NRA codes is not exactly clear at the moment. However, the figures of manufacturers and wholesalers could tell the story. So far as department stores are concerned. fixed prices on books, and code minimums on drugs and cosmetics have resulted in declines. It is barely possible that this business has been diverted to book stores and drug stores, but we hesitate to believe that this is so in toto.

CHANNING E. Sweitzer, managing director of the National Retail Dry Goods Association, proves with Federal Reserve Bank figures that sales in five Federal Reserve districts reporting retail department store sales monthly, the sale of books, drugs, and cosmetics are running far below the general increase in sales experienced by stores in these districts.

BEFORE the retail book code became effective last April, book sales showed substantial increases over corresponding periods for 1933. "But when the code became effective," says Mr. Sweitzer, "the declines began." In May, the first month of price-fixing, sales dropped 2.5 per cent., and every month thereafter, through October, sales showed substantial decreases, compared with 1933. These declines amounted to 21.7 per cent in September, and 19.8 per cent in October. In these same months, total department store sales ran ahead of 1933 by 6 per cent. Therefore, the decline in book sales was contrary to the trend of other articles not under price control.

THE adverse condition exists in merchandise under the retail drug code, which became effective last April. "Since then and through October," says Mr. Sweitzer, "sales of toilet goods and drugs have shown monthly decreases, with the exception of May, in both the New York and Boston districts."

THESE figures tell us nothing about the retail druggist. However, we would be willing to make a goodly-sized wager that all of this lost business did not go to the druggist. There seems to be no question but that the total sales of drugs and cosmetics declined under the mild price-fixing provision in the retail drug code. What would happen under conditions similar to the book code can well be imagined. Also it is a pertinent question to ask whether this loss of business is not too large a contribution for manufacturers generally to make to a rather unappreciative retail drug trade?

Prescription Prices

The prescription department has been called "the heart of the drug store." This for two main reasons: First the prescription department is the drug store's real excuse for existence; and secondly, prescription business is generally *very* profitable. Now there are complaints because some retailers believe that it is fair competition to take a smaller profit on prescriptions as a method of attracting business on other items.

Retailers generally, try to charge for prescriptions all the traffic will bear. And it is a fact that the movement to have physicians limit their prescriptions to U.S.P. and N.F. preparations was instigated very largely for the reason that druggists dare not charge as great a percentage of profit on ethical specialties as on the U.S.P. and N.F. products. In the face of these conditions, why should not the sale of prescriptions be a free and open market?

Retail druggists cannot assume the attitude that there is anything great and mysterious about the prescription department. For if they continue to charge high prices for prescriptions and are at all successful in educating the retail drug trade that high prices for these preparations are good business, they will drive people away from physicians and to proprietary medicines with a consequent loss of the business which they are striving hardest to maintain. Further than this, they will be helping along the cause of socialized medicine, which we are told by wiseheads in the medical profession, is getting so close that it is not at all funny.

●

Against the Tide

It is a peculiar thing that one after another, people will attempt the impossible in the hope that all who failed did so because they did not possess certain characteristics or faced different conditions. Outwardly conditions might change, but basically they are always the same. Some other form of government such as socialism or communism might be considered the ideal form by some, but until all human beings are ideal people, that form of government will not work.

The same thing goes for anyone who attempts to maintain retail prices or for anyone who attempts—on however large a scale—to make the retailer sell every product at the same margin of profit. The Drug Institute in attempting such a plan appears to us to be sweeping water against the tide. Retailing is not a cut and dried business. Everything does not come out even in retailing anymore than it does in wholesaling or in manufacturing. Certainly the large chains which are now joined with the N.W.D.A. members in this movement, did not establish their businesses by selling every item at a satisfactory margin of profit.

We do not believe that any such plan as is now being attempted will get very far, anymore than we believe that a manufacturer can maintain his retail prices in a large city if he still wants to sell his goods in any volume in that city. Businesses are successfully established by giving a better product, better service, or a better price. The Drug Institute has only seriously to consider the success of the cooperative-mutual wholesalers to realize this. Or conversely they can study certain chain stores which have long since grown soft and are now being frightened by those who are using an improvement over the methods of these original chains.

●

Interim Revision

Now that the monograph for ergot in the U.S.P. has been again revised, there are some who will question the wisdom of so many interim revisions. The first interim revision of the U.S.P. X monograph for ergot became official January 1, 1934. In this first interim revision, the standard for ergot remained the same as in the original text, namely, a fluid extract of ergot. Now a second change has been made making the alkaloidal salt, ergotoxine ethansulfonate, the official standard.

There is no question that constant revisions of many of the monographs are essential if the official standards are to mean anything. It is a pity that certain monographs, including those on vitamin assay and ergot, remained unchanged for almost the full ten years between revisions. Manufacturers of these products can not be blamed if their products are not all that could be desired when they are forced to standardize these products by methods that do not mean very much.

The one great danger in interim revision, however, is that revisions might be made without any sound basis to justify a change. When a monograph is found wanting, a change can not be made hit or miss just for the sake of making a change and thus trying to impress the uninitiated with the idea that improvements are taking place. Revisions should be swift but sure. Once definite knowledge of an improved method of assay is available, the machinery of the revision committee should move rapidly; but in the face of lack of any satisfactory method, the only course is to intensify research efforts to find an improved method.

●

Surprise

We were greatly surprised at a report which we heard recently. This has not been authenticated and naturally, therefore, only represents the opinion of some people.

The report says that a meeting in a certain department store in New York involving the sale of cosmetics, Bloomingdale's New York department store was said to be the largest seller of cosmetics. Macy's was rated second. The third was a complete surprise because it was said to be Goldsmith Brothers, a large stationery store down on Nassau street—the narrow street downtown of which the roadway is covered with pedestrians during the noon hour.

NEW AND NON-OFFICIAL

Drug Bill Anxiety

With the opening of the year, the industry is anxiously awaiting developments in revision of the Food and Drugs Act. At the moment there are no new developments other than the fact that James F. Hoge, counsel for the Proprietary is understood to have prepared a bill. It is the publicly stated opinion of this association that revision should take place, but the association states its position as being in favor of revising the present act rather than writing an entirely new one. Therefore, it is to be assumed that the Hoge Bill follows this form.

The special committee authorized by the National Drug Trade Conference at its annual meeting in December will also draft a bill. This committee consists of one representative from each of the associations belonging to the conference. This committee will act by majority vote and then report back to the executive committee of the conference. The executive committee of the conference consists of one delegate from each association. But since the conference can act only by unanimous vote, the report of the committee will have to have general approval for results to be accomplished. Naturally, this committee will have before it all the proposed bills and will doubtless attempt to effect a satisfactory merger of the points involved in each.

●

Stabilization Sagging

Fixed prices seem to be in for a tough time. Conclusions drawn on practically every side are to the effect that firm minimums tend to reduce consumption and are not in the best interests of the functioning of our industrial system. The NRA held a general hearing on the subject on January 9 as the opening gun on the part of those who are determined to eliminate this form of control by the government.

Just what will take place in the drug trade is not revealed, but the stabilization program is sagging badly and within a short time the situation will be just as it was before Drug Institute and the N.W.D.A. embarked upon the program. That is, there will be a number of manufacturers shouting loudly about their stabilized prices and going through a lot of motions to maintain the minimums. There will be a few more such manufacturers than there were before the present program was inaugurated, but the system hasn't changed much, and, instead of giving special discounts to large buyers, some manufacturers might make gifts to their "friends" of the same goods as these "friends" buy.

F. T. C. Activity

The Federal Trade Commission is becoming most active in its actions against advertisers in this industry. Inside gossip is to the effect that commission does not want to let go of any of its powers of advertising control to the Department of Agriculture any more than it wants to let any of its control of unfair practices pass to the NRA. Under such conditions, the Commission is trying to indicate that control of any of its normal function by any other governmental division is quite unnecessary. There are reports in the trade that the objection to advertising control by the Commission—namely, that the Commission can not act to protect the public unless some competitor is injured by the unfair advertising—could be removed by amending the Federal Trade Commission Act. There is no doubt that some factions in the industry would like to see such an amendment passed in the belief that control of advertising by the Commission would be better for this industry than would control by the Department of Agriculture as proposed in revisions to the Food and Drugs Act.

●

Drug Institute's Plans

The Drug Institute now outlines its future program as one of attempting to educate the retailer to the belief that every product should stand on its own feet in the drug store thus tending to complete elimination of loss leaders. Any such system of educating the retailer would be much along the lines of the work done by the Druggists' Research Bureau created by the N.W.D.A. and wished upon the Drug Institute by the N.W.D.A. shortly after the Institute was formed. Thus it looks as though the Institute was in for a lot of dull hard work with not much to show in the way of results. The success of any such program would naturally be very advantageous to the members of the N.W.D.A. in salvaging their retail credits, and to the chains in holding up the retail market so that they can get and stay out of the red. After all, these two groups formed the Institute mainly for this purpose.

"No doctor, I ain't ever been X-rayed, but I've been ultra-violated"

SENATOR COPELAND
Drug Bill Advocate

CHARLES WESLEY DUNN
A Trade Revision Leader

THE NEW
THE DRUG

For a period of close to two years, efforts have been made by the Administration in Washington to make effective the New Deal. This effort has been felt in no uncertain manner by all those interested in the manufacture, distribution, merchandising and sale of drugs and cosmetics. Thus far the application of the New Deal is in a state of flux. There are several very important steps still to be taken so far as this industry is concerned. However, it is well to take stock of what has, and what might happen.

First we had the Drug Institute of America, which, while not in any way connected with governmental activities in its conception, was a cooperative movement by certain groups to improve conditions for themselves. Further than this, the enactment of the Industrial Recovery Act shortly after the Institute was launched brought the Institute into close contact with governmental activities and tied it up closely with the efforts to apply the New Deal to this industry.

The Drug Institute apparently had its inspiration from the desire of chain stores and service wholesalers to take themselves out of the red. Service wholesalers were overloaded with questionable accounts receivable, and at least a majority of the retail drug stores could not liquidate at anything like one hundred cents on the dollar so that a profitable retail trade was the only way to save the wholesalers. The chains were in a position quite similar to independent retailers. Some of them were in no condition to liquidate dollar for dollar so that they needed higher retail prices to save themselves. Many manufacturers had enough accounts receivable from service wholesalers, independent retailers, and chains to give them a headache so they jumped into the movement with both feet. On the other hand, a great many manufacturers viewed the new organization with suspicion because of the fact that it was instigated by the wholesalers and the chain stores. Generally speaking, manufacturers were glad to aid in such a movement if it would be of benefit, but they were determined that no such organization would not be permitted to usurp any of the rights of the manufacturers.

We all know that the Price Stabilization Program followed from the activity of the Institute. With great ballyhoo on practically all sides many manufacturers proclaimed their intention of maintaining retail prices at profitable minimums so far as they were legally able. We all know too that cheating occurred all along the line. Not only did wholesalers resell goods to price-cutters because they felt that someone would sell these outlets and did not want their competitors to get ahead of them, but they also used these goods as a method of raising cash. This they could do for the reason that the manufacturers gave them credit while the price-cut outlets bought the goods from the wholesalers for cash. Further than this, retailers sold to one another, and finally to cap the climax, some of the price stabilizing manufacturers were giving three free to a dozen *only to their personal friends*. Thus as we stated last August, a general price stabilization movement is doomed to failure. Once the blare of trumpets and the ballyhoo die away and volume starts to decline, manufacturers in the movement begin to reconsider and those manufacturers who refused to be drawn into the experiment are more determined than ever not to be drawn into it.

The second step in the original conception of the Drug Institute is now under way under the name of Merchandising Facts. This organization is a fact finding body which will supply to its subscribers facts regarding the merchandising policies and activities of manufacturers, wholesalers, and retailers. Manufacturers are expected to pay rather large sums of money for this service. Naturally such a body, if it were sufficiently supported by manufacturers, wholesalers, and retailers, would be effective to a marked extent in forcing manufacturers to go on a stabilized basis. However, it is unlikely that this support will be forthcoming. A number of manufacturers feel that they are able to get what information they desire through their own organizations. They do not require all the great quantity of information which Merchandising Facts offers, and they feel that the method which they have always used to be more satisfactory

Now the Drug Institute takes up the third point in its original plan, namely the education of the retailer to make every product stand on its own feet. This is similar to the work that the N.W.D.A. attempted

DEAL AND INDUSTRY

JAMES F. HOGE
Progressive Proprietary Counsel

CHARLES J. LYNN
Heads Drug Institute

through the Druggists' Research Bureau which did not go very far in eliminating loss leaders which is the very essence of the plan. Memberships in the Institute have expired, and from remarks passed in the industry it does not seem as though all of them would be renewed. Further than this, opposition to the Institute has been open in some sections of the retail trade, since it is felt that the Institute interferes with the effectiveness of the N. A. R. D.

Other aspects of merchandising activities within the industry have been handled principally by the NRA through codes, and more recently by increased activity on the part of the Federal Trade Commission.

So far the NRA codes are concerned, little has been accomplished by them other than the stabilization of hours and wages of labor. Codes are now in effect for all branches of the trade with the exception of the wholesale division. The Pharmaceutical and Biological Code, which recently became effective contains no trade practice provisions because those subject to the code do not consider them necessary. If at some later date those working under the code or the government should consider these provisions necessary, they will be added to the code.

The Cosmetic code contains trade practice provisions, the outstanding one being the identification of demonstrators. This has definitely eliminated an old evil which existed in this division of the industry and is one of the outstanding accomplishments of the NRA in the industry.

The Package Medicine Code, as does the Cosmetic code, contains a provision requiring that manufacturers file with the code authority all their prices with discounts for quantities and for various types of distributors. Free goods must be filed with these prices and the same offers must be available to all buyers in any class. But this provision has not proven effective for the reason that some manufacturers have been giving three free with a dozen to their friends only. This was explained to the code authority as the mere giving of presents to friends. Certainly every manufacturer at some time or another gives some of his goods to friends.

The Retail Drug Code included two major trade practices. One of these was the requirement that no retailer of drugs and cosmetics be allowed to sell any item at a price less than one-twelth of the manufacturer's price to the retailer in dozen lots. This has been most effective in fixing the lower limit to which prices can be cut, and it constitutes one of the most important provisions of the entire NRA as regards the drug trade. Another important provision in the retail Drug Code was the provision against substitution on prescriptions. This provision has undoubtedly been helpful to those ethical retailers who abhor this practice, but it has also been extremely helpful to manufacturers of ethical specialties due to the fact that sufficient retailers have been sufficiently frightened by check-ups which have been made to cause them to steer clear of this unfair practice.

Aside from these two provisions, the Retail Drug Code has accomplished little. It has failed to fix prices at levels which insure profits on all sales in all territories. Generally speaking it has failed to bring the retail druggist out of the fog which has surrounded his business for many years back.

One phase of attempts to apply the New Deal to this industry, which is considered by many the most important phase, is that of Food and Drugs Act revision. This has been going on actively for a full year and a half and the year which lies ahead gives promise of something real being accomplished. At the present time bills are being written by all manner of people either closely or remotely associated with the subject. Naturally Senator Copeland will write a new bill as he has fastened his name on such legislation as its sponsor. Bills will appear in the House of Representatives. In the trade, Charles Wesley Dunn has his bill; James F. Hoge, the recently appointed counsel of the Proprietary Association, is understood to be preparing a bill; W. Bruce Philip, until recently counsel for the N.A.R.D., and past president of the American Pharmaceutical Association, has prepared a bill; and the special committee of the National Drug Trade Conference is at work on a bill which might merge all other

(*Continued on page 108*)

GATHERING CIVET

By Maurice G. Couderchet*

*Compagnie Africaine des Plantes a Parfum.

Photos Courtesy Naugatuck Chemical

Despite the triumphs of synthetic chemistry in furnishing perfume materials, the perfumer still turns to the scent glands of the civet cat when he needs a fixative for an unusually lovely odor. Although apparently known and used by the Egyptians, Romans and Greeks, the secret of the origin of civet was preserved until over a century ago. This is not surprising since civet was gathered by the natives in the heart of what was then "darkest Africa," in places to which the white man dared not penetrate. The heart of the civet gathering industry is still in Africa, and a small pouch under the tail of the lowly civet cat is still the source of all our civet, but the demands of a modern cosmetic industry have brought a certain degree of system into the gathering of civet so that today its annual production is about 5,500 pounds with a value close to $200,000.

Civet is produced by the scent glands of the civet cat. As it is formed, it is pressed through a small orifice into a pouch located under the tail near the animal's genital organs. This scent pouch the animal can compress at will and without doubt it was originally used as a defense mechanism against attack. In fact, some of the cousins of the civet cat still use the scent pouch for discharging overpowering odors at their enemies. However, this power is no longer commanded by the civet cat and when at liberty he simply rubs himself against a tree or stone when his pouch becomes too full, thus relieving himself of some of its contents. But in captivity it has been observed that the secretion is increased when the animal is teased or frightened and there seems to be no reasonable doubt that his ancestors were able to discharge the civet at their enemies.

How the natives of Abyssinia gather from the scent pouch of the civet cat one of the world's finest perfume fixatives.

Most of the civet of commerce is gathered in Abyssinia. There is no actual breeding of the cat, but the natives capture them and feed them carefully since the quantity and value of the secretion depend upon the animal's diet and health. They are exclusively fed on fresh meat—beef or preferably mutton—and kept in narrow, individual cages, so that the animal can be held from behind without being able to turn around and bite. When the secretion is to be collected, the animal is held tight in its cage, which is opened from underneath, and the contents of the pouch removed with a spatula made of ivory or bamboo. The operation is repeated several times a week and the average cat yields an average of 3 to 4 gm. of civet a week.

The natives who engage in this business usually keep from 20 to 30 of the animals, capturing more as they need them. So far, no attempt has been made to raise the animals scientifically with a view towards producing a superior breed for this purpose, but every-

One of the local dealers or "nagadis" weighing the zebu horns containing civet with the "Maria Theresa" thalers which are used specifically for this purpose.

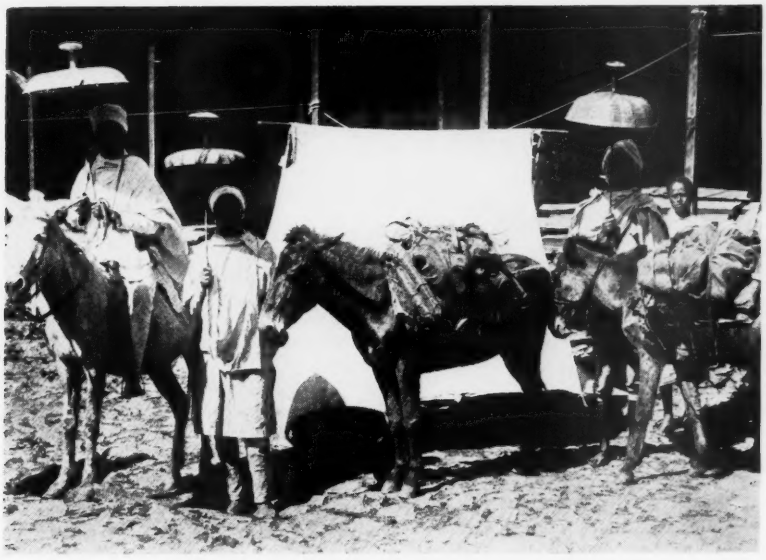
(*Below*) Appearance, smell and even taste are the methods used by the dealers for determining quality and freedom from adulteration.

thing is done to fatten them up and improve the quality and quantity of the secretion. Superior animals are fed on poultry exclusively and they yield a civet which is almost white and of exceptional quality. In some cases, the cages are built indoors so that the animals may be kept warm, for heat increases the yield. But the diet seems to be the most important thing although the male cats usually yield a larger quantity of civet of higher quality than do the female.

As the civet is collected from the animals, it is freed from hair and dust and packed in zebu horns. Travelling caravans of dealers or agents of producers, collect the civet from the natives giving them various imported and manufactured articles in exchange. These dealers or "nagadis" make their trips at various intervals during the year and carry the civet and other products of the interior through the various provinces to Addis Abeba, capital of Abyssinia. This city is also the customs center and the terminus of the railroad which carries the produce to the coast from whence it is shipped to all parts of the world.

Before the caravan reaches Addis-Abeba, the civet has been taxed and retaxed by every district and province through which it passes. The customs officials in Addis-Abeba in turn exact a high duty and the railroad system which carries it to the coast, having a monopoly, exacts a high tariff on transporting the civet. Thus, in part, is explained the average price of $3.00 per ounce at which civet sells in this country.

In Addis-Abeba, too, the contents of the zebu horns are checked for quality and weighed by the commercial shipper. The color, the smell, and the taste all enter into the test for quality, while the weighing operations are carried on with coins called "Maria Theresa Thalers." Each of these weighs 28 gm. and is considered the weight under the unit name "okette." Subdivisions are obtained with piastres—20 to the thaler. Thus the exporters of civet have to weigh every zebu horn—empty and full—in "okettes" and then transpose this into grams for European commerce.



A caravan arriving in Addis Abeba with its load of civet from a collection depot in the interior of Abyssinia. The railroad terminus at Addis Abeba is the only communication with the outside world.

(*Below*) Closeup showing how the civet cat is held while the secretion is scraped from his scent pouch with a small spatula of ivory or bamboo.

The finest quality civet is shipped to France and to the United States, while inferior grades go to Yemen and the Persian Gulf where it is in great demand by the Arabs. The Arab women use it as a cosmetic for hair and eyebrows, while it is also consumed as a food and as a drug for its supposedly aphrodisiac properties. In Europe, too, during the sixteenth and seventeenth centuries, civet was considered an aphrodisiac. Shakespeare, who described civet as the "most unclean flux of a cat" also referred to both its cosmetic and drug applications. The passages are "An ounce of civet, good apothecary, to sweeten my imagination" and "He rubbeth himself with civet, a sign that sweet youth is in love."

It is rather hard to imagine anyone eating or tasting civet since it has a bitter rather acrid taste and a repulsive fecal odor. However, when diluted, the odor becomes more pleasant and its value as a perfume material is due to its strong fixing properties and also that it gives warmth and tenacity to finished perfumes. When it is fresh, ordinary civet is a soft paste, with a pale yellowish color, but when exposed to the air or with age it becomes darker and assumes a harder consistency.

Because of its high value, civet is constantly being adulterated by the natives or the merchants through whose hands it passes. The chief adulterants are petrolatum, cocoa butter, honey, beeswax, butter, lanolin and especially banana pulp. The adulteration is difficult to determine, but firms specializing in this business have developed highly involved physico-chemical analysis for determining the purity of the product. For this reason it is important to procure civet from a recognized, established factor in this business.

But despite all efforts, civet has yet to be produced synthetically. Milady must still depend upon the scrapings of a scent pouch of a savage African cat, the primitive methods of a native industry, the picturesque caravan, and a civilization based upon barter, as well as upon modern science and industry, to produce for her the finest perfumes and the loveliest odors in the cosmetics on her dressing table.

FEMININE HYGIENE JELLIES

By Philip Stoughton*

The widening market for this type of product moves us to give the latest information on the preparation of product of as much merit as can be found. There are advantages and disadvantages to all formulas, and Mr. Stoughton cites them.

Chemical Feminine Hygiene products fall into five classifications: douches, powders, tablets, suppositories and jellies. Of these only the jellies are used in the Birth Control Clinics throughout the country. For this reason only the jellies will be considered here.

Dr. Hannah M. Stone (New York) and Dr. Cecil I. B. Voge (London), with many other authorities, have stressed the point that the physical properties of a jelly are as important as its chemical composition. The physical properties involve not only the formula but also the method of compounding it. A good feminine hygiene jelly should be harmless to the tissues and rapidly spermicidal. It should adhere well to the vagina and cervix, should be non-irritating and aesthetically satisfactory. No formula is non-irritating to everyone. The more nearly a formula is of the "shotgun" variety, the more apt it is to prove irritating. Consequently, the simple formulas are best and among these I have chosen three for discussion.

Lactic Acid Jelly (Starch-Glycerite)

Lactic Acid	1%
Boric Acid	5 "
Starch-Glycerite U.S.P. q. s.	

This jelly, when properly made, will stand two years before separating, but will soften at the end of about ten months. The directions for making Starch-Glycerite in the U. S. P. require a higher temperature than I find desirable. Usually it is easier to dissolve the boric acid in the glycerine than in the finished jelly base. I find an alkali starch will make a better jell with a longer life than the acid starches.

Advantages of this jelly: Widely used by physicians and clinics. Has a long background of successful use. Adheres well to the vagina and cervix.

Disadvantages of this jelly: The high glycerine content causes irritation in some cases and frequent oozing or leakage after use.

Lactic Acid Jelly (Gum Tragacanth)

Lactic Acid	1½%
Boric Acid	4 "
Glycerine	10-30 "
Gum Tragacanth (depending on quality)	2½-4 "
Water q. s.	

The preparation of this jelly is very simple. The problem is getting it to keep well. A high glycerine content helps to preserve it. Preservatives are inadvisable in this type of preparation. The lactic acid can safely be raised to 2% while with the starch-glycerite any increase over 1% makes the jelly intolerably irritating to most women. The glycerine content can vary to quite low points, 10-15%. Every once in a while a whole batch will turn liquid because the tragacanth will go. Cooking the tragacanth for some time and the selection of a good grade will help to preserve the jelly. With less than 20% of glycerine the jelly is apt to harden in the ends of the tube.

Advantages of this type of jelly: Has been in use for several years with good results. It irritates few women. Does not contain enough glycerine to cause oozing except where the woman is glycerine-sensitive. The cost of materials is not high. Acts as a lubricant which may be advantageous in some cases.

Disadvantages of this type of jelly: It is temperamental. Occasional batches will not keep in spite of every precaution. Adheres badly to the cervix and vaginal mucosa.

Lactic Acid Jelly (Gum Karaya)

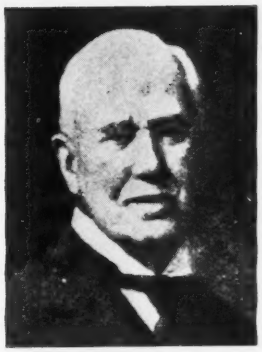
Lactic Acid	1½%
Boric Acid	4 "
Glycerine	5-20 "
Gum Karaya (depending on quality)	3-5 "
Water q. s.	

This is a newer formula than the other two. Is growing in popularity. This jelly is easy to make and will keep well. The lactic acid content can safely be raised to 2%.

Advantages of this type of jelly: Is cheap and easy to make. Never seems to spoil or separate. Is gaining wide use.

(*Continued on page 39*)

*Chemist and President—R. A. S. Laboratories Inc.



SIR ARBUTHNOT LANE
Early advocate of mineral oil

DR. ADOLPH SCHMIDT
Early advocate of agar

DR. JOSEPH F. MONTAGUE
Early advocate of psyllium seed

LAXATIVES

The market for laxatives moves in waves. A product is introduced; reaches the crest of popularity; then declines in public favor.

Constipation is the most common of all ailments affecting people of all ages in every walk of life. It is almost a universal ailment and as a result laxatives are the largest single item going into the family medicine chest. The market for laxatives is larger than that for any other product of this industry and, as a result, any new developments in the field are scrutinized closely by all drug manufacturers.

Perhaps the most interesting feature of developments in laxatives has been the fact that they have come in waves. Some new substance or some new knowledge about an old substance comes into the spotlight with dramatic suddenness and for a considerable period becomes *the* modern laxative, completely effacing all others. Then slowly but surely objections are raised, the product loses its first favor, and drops back to a more reasonable place in the laxative field. Two examples of fairly recent origin are mineral oil and psyllium seed which in their early heydays took the country by storm, sweeping the drug manufacturer, the medical profession and all other laxatives before them. They were then, and they are now good laxatives, and they sell in large volume and give every indication of continuing to do so. But, although constipation may be the universal ailment, the universal laxative is yet to be found and probably will never be found, due to the varying conditions surrounding the ailment itself.

Since no single substance has thus far turned up which has all of the ideal laxative properties, the tendency of late among laxative manufacturers has been to combine two or more substances with the idea of utilizing the best features of each. One of the most successful of this new school of laxatives has combined karaya gum with buckthorn bark while others use mineral oil in various combinations, and still others use psyllium seed or psyllium seed mucilage in various combinations. Inasmuch as the present tendency seems to be combinations of laxative materials, a review of that general group would seem to be valuable at the present time.

Generally speaking, a laxative acts in one of two ways to stimulate the peristalic movements of the intestine. It either induces irritation of the mucous surface of the intestine thus making it more sensitive to the pressure of the contents, or it increases the bulk of the contents until they exert more pressure on the mucous surface. Most of the vegetable purgatives act by irritating the mucous membrane, while the saline cathartics act by increasing the bulk of the contents. Although laxatives have been classified in many ways, this classification according to type of action is probably the most practical from the manufacturer's standpoint and is the one which will be followed here.

The first of the group which acts by irritation is castor oil. It is one of the oldest laxatives known to man, was used by the Egyptians and introduced into Europe about 1764. In itself, it is a bland, non-irritating fluid, but it is saponified by the pancreatic juice and the ricinoleates thus formed are irritating and produce purgation. It is mild, but certain in its action, and no harm can be done with overdoses since any oil exceeding the digestive capacity of the stomach, passes through unchanged like mineral oil.

A number of purgatives—aloes, cascara sagrada, buckthorn bark, senna and rhubarb—owe their activity to the fact that they have an irritating effect upon the mucous surface of the large intestine. Aloes is a very useful purgative and is widely used in treatment of

chronic constipation. Its use dates back to the Greeks and Romans. Cascara sagrada is mild in action and very generally used, and the fluid extract particularly is very popular in habitual constipation. So similar in nature and in action is buckthorn bark or frangula that it is often mistaken for cascara. The mistake is not a serious one, however, since they so closely resemble each other in action and effect. Senna is perhaps the most drastic member of this group and sometimes produces griping. It is sometimes used to reinforce the action of cascara or buckthorn bark. Although rhubarb is extremely valuable in some cases where a slight constipation is desired after the bowels have been evacuated, it is almost always used only as part of a specific compound.

There are several resinous materials which also are effective due to their irritant action. The most important of this group are probably podophyllum, colocynth, jalap and croton oil. However, due to variations in potency of the crude drugs, it has become common practice to use extracts wherever possible since their manufacture may be closely controlled and products of standard potency arrived at. This applies to practically all of the vegetable and resinous laxatives which have been mentioned. Aloin and podophyllin, in addition to the fluid extract of cascara, are probably the outstanding examples of extracts which are particularly useful in the treatment of chronic constipation, particularly where action upon the large intestine is specifically desired. However, uniform extracts of all of these vegetable agents are available for use in the manufacture of laxatives.

Certain of the mercury preparations increase peristalsis in the same way as these vegetable purgatives. Calomel is perhaps the most widely used of this group and its administration is said to be accompanied by no danger of poisoning so long as it has this irritating purgative effect. However, when calomel fails to evacuate the bowel, absorbtion takes place with the attendant danger of mercury poisoning. However, insoluble compounds of mercury, particularly calomel and gray powder, are especially adapted for children and are of value in summer diarrhoea and similar affections.

Phenolphthalein is one of the most popular of the irritant group of laxatives. Its laxative action was first discovered about 1900 through studies of its effects upon workers in dye plants. It is a mild, tasteless laxative, acting chiefly on the large intestine. It is but little absorbed from the alimentary canal and is ordinarily non-toxic even in large doses. It may be used in habitual constipation except in such cases where a skin eruption, apparently allergic in nature, results from its use. It is especially valuable where ease of administration is desirable.

The saline cathartics differ from the laxatives which have already been discussed in that they do not induce irritation of the intestines. They act by increasing the bulk of the contents of the intestine. They do this by causing an increase of water to remain in the intestines or to pass into the intestines through the walls. Because they act through the power of the salt to retain and absorb water, their administration should always be accompanied by large quantities of water. The chief saline cathartics used in therapeutics are sodium sulphate, magnesium sulphate, sodium and potassium tartrate, and sodium phosphate. In addition, both magnesium oxide, milk of magnesia, and magnesium carbonate have a purgative action from being formed into soluble salts in the stomach and intestine.

The saline cathartics act quickly, and chronic constipation, particularly that due to sedentary habits, is much benefited by their use. The common form of administration is in dilute water solutions before breakfast. Both sodium sulphate and magnesium sulphate are very active cathartics although unpleasant to most tastes. Of the two, magnesium sulphate is the more drastic. Sodium phosphate is less active than either of the sulphates, but it is also less disagreeable to most people. Its mild action, agreeable taste and stimulating effect upon the liver make it valuable in certain cases of constipation involving other complaints. The double tartrate of sodium and potassium either plain or in the form of Seidlitz powder is also very valuable especially where a single large dose is required and any pain or griping is to be guarded against. In fact, as a class, the saline cathartics are much less likely to cause these disturbances than are the vegetable purgatives.

Although it has no chemical relation to the saline cathartics, agar is like them in that it, too, retains water in the alimentary tract in the same way as the saline cathartics. In this way it increases the fecal bulk and prevents the formation of hard masses in the bowel. Agar is obtained from various East Indian seaweeds and its use in constipation was first suggested by Professor Adolph Schmidt, of Dresden in 1905. Since then its use has extended all over the world and it has been recommended in all forms of constipation. It is tasteless, indigestible, and harmless, should be administered with foods and liquids, and when properly used brings about a condition approximating the natural function.

Not long after agar had moved on to the laxative horizon, mineral oil became widely used largely through the impetus given it by favorable comment from Sir W. Arbuthnot Lane. It has practically no odor or taste, is non-irritant, not acted upon by the digestive ferments, and is not absorbed. It acts mechanically partly by increasing the bulk of the intestinal contents and partly by softening the contents and acting as a lubricant. It is widely used and when administered properly does not retard or interfere with the digestive processes.

The two most recent additions to the group of laxatives which add to the fecal bulk are psyllium seed and karaya gum. They too do not interfere with digestion and mix naturally with the contents of the intestine. Both swell to many times their natural size upon absorbing moisture and it is to this that they owe their laxative effect. Of the two, karaya gum seems to be more foolproof in that it does not become impacted

(Continued on page 34)

HEATING FATS AND WAXES

By J. M. Williams*

The effect of temperature on the heating of fats and waxes and on making creams is a much discussed subject. Perhaps too little attention is paid to this important phase of cosmetic cream manufacturing.

In the following article a study and comparison of the effect of heat on these materials is made.

In manufacturing cream there is a great tendency to throw the waxes and oils in a kettle. If a gas fired kettle is used the operator lights the gas and comes back after a while to see if the waxes are melted. Frequently they are by this time overheated. In a steam heated kettle there is not quite so much danger, but still always some danger of spoiling the delicate wax structure, or at least wasting a lot of time waiting for this material to cool sufficiently to make a cream at the proper temperature.

These tests were made on materials of known commercial purity; that is, these waxes and fats are obtainable for manufacturing on any large scale. The tests were all made in glass apparatus so that there would be no metal contamination.

Proper handling of fats and waxes when bringing them to the desired temperatures for manufacture of cosmetics is of utmost importance. Mr. Williams tells the proper procedure to follow when heating the wide range of these products generally used.

Ozokerite (mineral wax) which has a melting point of 70° C. started to melt a little below this point and soon started to form a translucent white jelly; at 80° C. becomes clear, almost water white with a bluish tint, and at 97° C. becomes clear water white.

After this point the heat was continued. It began to smoke and at that point the heat was discontinued. The wax commenced to turn brown and on cooling and becoming solid, is a very dark brown.

From the above, the best heat to melt for manufacturing a cream would be at 80° C., for at this temperature the wax is clear and still does not discolor on cooling.

Spermaceti (cetaceum) with a melting point of 46° C. becomes clear water white at that temperature and remains so until you reach a temperature of 95° C. or more. After that it begins to assume a brown color and on cooling is a brown solid. The best point for melting this material would be around 50° C. or more.

Beeswax white (cera alba), one of the most used waxes for cream making, has a melting point of from 64° C. to 65° C. The wax melted clear at 62° C. with a very light yellow color, this color gradually increasing in darkness but holding a clear liquid at 95° C. At about this heat the wax started to darken more rapidly and assume a dirty brown color. A very peculiar point is that at 95° C. the wax cools with a little lighter color than it does at its melting point of 62° C.

The best melting point to use for this wax would be from 62° C. to 70° C.

Paraffin has a melting point from 42° C. to 60° C. This wax melted at 51.5° C. From that point on to 98° C. it was clear water white liquid and continued so until a higher temperature was reached. Then, upon cooling, it became a darker shade running into a very light amber. Sixty degrees C. would be a good melting point to work this wax.

Ceresin is as a rule a mixture. The melting point is 74° C. to 80° C. At 58° C. it forms a jelly and is not clear white. From 78° C. to 97° C. it forms a clear water white liquid cooling to a darker shade as the heat is increased. At a higher temperature it continues to darken showing that high temperature should be avoided.

Stearic acid (cetylacetic acid stearophanic acid) has a melting point of 56° C. From 57° C. to 95° C. it goes a clear water white liquid cooling to a very faintly darker shade, and even when taken over this temperature only a slight difference in color is noticed. This acid is of a very high quality. All stearic acid will not react so well under these temperatures.

Carnauba Wax has a melting point from 84° C. to 86° C. This wax melted at 86.5° C. to a clear yellow liquid. On continued heating it darkened in color and at a higher temperature it turned to a muddy, dirty brown color. Carnauba Wax is a hard wax to handle and one should use caution in melting this wax. Being used in lipstick a darkening of this wax will throw the shade of lipstick off color.

Petrolatum white (jelly) has a melting point of 45°C. to 48° C. This material while it melted at 47° C. was not a clear translucent liquid; at 50° C. it became clear with a yellow bluish floresence, losing its bluish cast and turning a yellow color. Over 95° C. it commenced to assume a darker shade of yellow, continuing until it

*Allied Products, Inc., Suffern, N. Y.

reached a light brown color. From this one can see how important it is not to overheat this preparation or your cream will not be white as you wish.

Lanum (lanalin adeps lanae) has a melting point of of 38°C. to 42°C.

Lanum, melting at 42° C. gives a clear yellow viscous liquid; continue heating this material and it increases in depth of color practically at every degree of temperature. At 94° C. it is brownish, and when heating over this the color assumes a darker shade and the odor increases in proportion as the temperature rises. In melting lanum special care is required and the apparatus used will be described later.

Absorption base (oxycholesterin base) has a melting point of 40° C. Being obtained from lanum of course, it would naturally react nearly the same as lanum. At 47° C. it is a clear amber brown liquid and by continued heating this color is increased. From 95° C. on, absorption base rapidly increases in color until a dark brown fat is obtained, rendering it unfit for cosmetic manufacturing.

Cacao butter (theobroma oil) has a melting point of 30° C. to 35° C. This was a very good grade used and at 39° C. it became a clear brown yellow liquid. Continuing heating to 95° C. it became lighter in color but separating on cooling. Another sample continued heating over 95° C. assuming a muddy brown color and separating quite badly on cooling. So, watch the heat on cacao butter when making creams.

The above is the result of careful work on heating fats and waxes and one can readily understand why care should be taken at all times to avoid over heating.

After melting these waxes we wanted to know just how long it took for them to set and their physical appearance during this congealing stage.

Ozokerite: Starting at 86° C. being a clear water white liquid; at 65.5° C. 15 minutes, it was creamy; at 62° C., 20 minutes, semi-solid; at 61° C., 21 minutes, it started to become quite solid and at 60° C. it was a solid white wax, taking a total of 35 minutes. This shows a straight line from 86° C. to 61° C., showing a fairly pure wax.

Spermaceti: Starting at 75° C. this wax was a clear water white liquid until it reached 46° C. at 16 minutes; then a slushy white cream gradually hardening until at the end of 36 minutes it was solid. This wax showed a long steady line indicating a pure wax.

Beeswax: At 79° C. a clear yellow liquid gradually hardening on the side, then starting to be slush at 61° C., then a creamy yellowish white, turning slowly into a solid taking a total time of 45 minutes. Beeswax being a complex body does not give as sharp a line as spermaceti, but a much longer creamy one, indicating that a cream made with a large amount of beeswax will require a longer time to set.

Ceresin: A clear water white liquid at 74° C. ran a long range of consistency before it became a solid wax. This shows the results of mixtures of waxes.

Stearic Acid: At 67° C. a clear liquid; at the end of five and a half minutes and at a temperature of 54.9° C. a scum forms on the surface, then a slush at 55.1° C., holding this form for 20 minutes and turning creamy; then a solid at 52.5° C. Time 32 minutes. This is the reason why in making a vanishing cream it is best to continue a fairly long mix.

Carnauba Wax: From 94° C. to 82° C. it is a fairly clear yellow liquid; then it starts to thicken and quickly forms a solid at 80° C. This wax has a great tendency to separate, as may be judged by this performance.

Lanum: Another organic fat, shows from 49.5° C. a slow jelling effect for 35 minutes, dropping to a temperature of 34° C. and rapidly becoming fairly solid.

Absorption Base: This substance follows fairly close to Lanum except it takes a longer time to assume its natural consistency.

Cacao butter starting at a temperature of 30° C. will become a solid fairly early.

Petrolatum: Clear at 55° C; at the end of 7 minutes and a temperature of 47° C. it starts to cloud and form a pearly jelly, and at 15 minutes at 41.5° C. a stiff jell. A cream with this material as a base is always easy to handle.

The above information should be of value to the manufacturer of cosmetic cream. It shows how different waxes act under heat and the cooling of same. Below is an example of how a 50-50 mixture of beeswax and ozokerite acts on cooling—one stirred while cooling and the other allowed to cool by itself.

Not stirred while cooling:

Starting at 96° C. clear until 73.5° C; time, 20 minutes; a quick hardening for 5 minutes and then an uneven congealing from this point on until it became solid.

Stirred while cooling:

Starting at 91° C. a long drop in temperature for 25 minutes, gradually assuming a creamy appearance until 61° C. is reached, and then a good smooth appearance and hard at 60° C.; a total time of 45 minutes.

From the data in this paper there is every reason to use caution in the melting and cooling of waxes and fats. They should not be heated over their liquefying points and should be properly stirred until they are cool enough to fill without separating.

Laxatives

(*Continued from page 32*)

when insufficient water is used with its administration. Some efforts have recently been made to use only the mucilaginous portion of the psyllium seed, or to use the psyllium seed in various combinations to circumvent this effect in those who cannot be persuaded to take sufficient liquids with the laxative. Karaya gum, too, is apparently never used alone but always combined with some other laxative factor to give it the necessary "kick-off." In fact the prevailing tendency at present is to improve, refine and combine the various natural laxative factors which are known in an attempt to produce the universal, ideal laxative.

TABLET MAKING

Some practical notes on the making of tablets.

It requires a fair degree of skill and some theoretical knowledge before one can make uniform tablets. Probably the least part of the operation is the development of a suitable formula. The difficulty lies in making the tablets. There are a number of factors, most of which are purely mechanical, which must be considered before one can turn out tablets on modern high speed equipment. Insofar as the formula is concerned the most important element to be considered is accuracy of dosage. The finished tablet must contain exactly the same proportion of the various ingredients as the original formula contains. If the preliminary mixing is not thorough; if the granulation is not uniform the dosage is bound to vary.

To summarize the physical characteristics of a tablet we may say that it must be uniform in weight, and appearance; it must break up in the proper place (some tablets must break up in the throat, some in the stomach, some in the upper intestine and others in the lower intestine). The tablet must also keep its shape, that is it must not crumble nor cap and it must not disintegrate on standing or upon handling.

Therefore, the tablet formula may be separated into functions as follows:

The active ingredients.
The base or diluents.
The disintegrator.
The lubricant.
The binder or excipients.

The active ingredients are the medicaments included for the specific purpose the tablet is intended for. Bases or diluents are inert substances which may or may not be included in the formula depending upon the bulk active agents. In cases where the medicinal ingredients are very powerful and, hence, used in very small amounts it is customary to dilute them with inert substances such as talc, chalk, starch, clay, flour, etc. to give the required bulk or size to the tablet.

The disintegrator, usually potato or cornstarch, is included for the purpose of breaking up the tablet after it has been swallowed. The amount of starch used and the compression given the tablet determine the speed and, therefore, the place in the system where the tablet will disintegrate. The starch by absorbing moisture causes the tablet to swell up rapidly, thus disintegrating it. Starch is useful also as a lubricant as to a considerable extent it prevents the sticking of some types of granulation to the punches.

Lubricants are included simply for the purpose of keeping the granulation from sticking to the punches. Talc is used for this purpose. A better lubricant is zinc or in fact any of the stearates or oleates. Potassium oleate (castile soap powder) is exceptionally fine but many manufacturers prefer to use powdered, neutral white soap because it has virtually no odor. Pulverized carnauba and paraffin waxes and cocoa butter are also used as lubricants, sometimes are mixed with talc, starch or soap.

The binder is the material used to form the granulations. It consists of solutions of gelatin, tragacanth, acacia, glycerin, or sugar and also cocoa butter emulsion. The amount required is that which is just sufficient to cause the material to form a ball in the hand without sticking to it. The binder causes the fine powder particles to form agglomerates.

The process of tablet making is as follows:

Mixing and milling the dry extracts and chemicals.
Granulating.
Drying the granulations.
Lubricating.
Compressing.
Coating (when required).

The first operation is simple excepting when some of the minor ingredients are poisonous or so hygroscopic that they stick in the mixer or the pulverizer. In some cases where all the ingredients are of uniform particle size the pulverizing may be omitted. The mixed extracts excluding the lubricants are dumped into a mixer and wetted down with the gelatin solution or whatever other binder may be used for the purpose and the entire mass is mixed until the batch is about as damp as brown sugar. The entire batch is then granulated. This is accomplished by means of a mechanism which rubs the dampened material through a screen or baffle plate of suitable mesh usually an eight or a ten. As the appearance of the final tablet depends entirely upon this operation it is most important that it be carried out uniformly. The granules formed by the machine must be reasonably uniform in size without an excessive amount of fines which cause capping and inaccurate dosage. A certain amount of fines are necessary to secure a firm tablet but for most purposes the amount should not exceed 20%. Granulation accomplishes two purposes: it provides accurate dosage because a die of given size will contain only a certain number of granules and consequently a certain weight of material and it also provides uniform hardness or tablet consistency because of the effect of pressure on a given weight of material in the area between the punches in the die.

When the dampened mass has been rubbed through a granulator, the granules fall on drying racks upon which they are allowed to dry. To accomplish this heat and air are necessary. Some manufacturers build a drying room containing a steam coil around the inside wall near the floor and a fan for circulating air. In constructing such a room it must be recalled that drying time is directly proportional to the rapidity of circulation of warm dry air. It should be obvious (but nevertheless it is a point too frequently overlooked) that ducts must be built down inside the dry room so that the saturated, colder air which is heaviest and which as a consequence will lie in a blanket near the floor, will be drawn off first. If the hot dry air near the top of the room is drawn off first the saturated air will remain and of course will prolong the drying period.

The obvious defect of a dry room is that it is very wasteful because heated air is being continually discharged into atmosphere instead of being recirculated. In order to re-circulate hot, saturated air it is necessary to dry it before it is again admitted to the hot room. This is sometimes done by passing the saturated air over cold water coils which condense the moisture,—an unsatisfactory procedure at best because of the heat loss and the rusting of the pipes. Another and better arrangement was described in a recent issue of THE DRUG AND COSMETIC INDUSTRY whereby the hot, saturated air is re-circulated through a dehumidifying unit which contains cells of a hygroscopic chemical that absorb the moisture without causing any appreciable heat loss.

Instead of dry rooms most manufacturers prefer to use tray or truck type dryers. These are heavily insulated ovens containing heating elements and a fan for circulating air. Inasmuch as temperature and air velocity can be controlled to a degree drying closets are much more efficient than drying rooms and require but a fraction of the space. By using a drying oven it is possible to dry granulations of certain types in one or two hours or less. Thus the operation of granulating is almost continuous. As a matter of fact it could easily be made continuous through the use of an automatic dryer. This machine contains a series of moving trays attached to a conveyor. The insulation and drying principles are the same as those utilized in the tray or truck dryers.

When the granulation is sufficiently dry the racks are removed and dumped into a screening mechanism which removes the large lumps. These lumps are ground to proper fineness and the resulting product is added to the rest of the granulation. The entire batch is put into a suitable mixer, the lubricants—soap, stearates, etc.—are added and the mass carefully mixed. The type of mixer employed in this operation will vary somewhat depending upon the hardness of the granules. Violent mixing will produce too many fines, so for most purposes, it is best to use a continuous ribbon agitator or blender. Occasionally even this will not do, and resort must be had to the tumbling barrel types of mixer which contain no agitators at all and which secure thorough distribution of the lubricants by continuously dividing and subdividing the batch as it flows from one point in the mixer to another. When the lubricants have been added and the granulation well mixed it is ready for compression into tablets.

As stated in the opening section the tablets must be of uniform size and hardness. When the press is properly adjusted and the granulation is right no difficulty will

(Continued on page 59)

BALING BELLADONNA

BELLADONNA READY FOR EXPORT

NEW DRUG EXTRACTION PROCESSES

By Francis Chilson
Consulting Production Engineer

In this article the author reports on the remarkable results obtained by him and other workers in the field of drug extraction. This report will be followed later with another giving results of work now being carried on.

On numerous occasions we have discussed drug extraction processes, predicting some radical departures in this field in the very near future. In the past year we have witnessed the accelerating adoption of vacuum extraction and concentrating processes, whose advantages we pointed out some years back, and the introduction of some entirely new methods. It is our purpose now to review progress to date, to describe one new process and to discuss still another method with which we are experimenting and which to the best of our belief has not yet been tried on a production scale in this industry.

Everyone is familiar with the time-hoary method of extracting drugs by means of maceration and gravity percolation. That such a slow, laborious, inefficient and wasteful method of extracting crude drugs continued unaltered for so many years is a testimony at once of unprogressiveness and of a too literal interpretation of pharmacopia rulings. In all these years practically no advance was made in the art of extraction until the adoption of the recirculating percolator, which kept the menstruum moving and reduced the soaking or maceration period. Various modifications of this method were adopted and in more recent years the adoption of the vacuum percolator accelerated the process considerably, especially in the extraction of vanilla beans, in which field this type of percolator is used to a considerable extent.

All such methods produce extremely variable results depending upon the porosity and character of a given drug. In cases where the drug is porous and not sticky extraction is fairly thorough. When the drug is not porous or when it is sticky, the yields are highly variable. Thus, it has been known for many years that a chemist using a test quantity can extract, under laboratory conditions, a yield anywhere from five to two hundred per cent greater than can be obtained from the same lot of drug extracted under plant conditions.

The labor of grinding drug, loading percolators, carrying away percolate in small containers, dumping percolators and loading dreg stills to recover solvent in the spent marc are simply accepted as an unavoidable part of the operation. The loss of solvent by evaporation; the loss of extract; the dust; and the time lost in maceration and percolation, ranging anywhere from three days to as many weeks, are recognized and accepted as inevitable.

But the extraction phase is less important possibly than concentration of the percolate which is so often accomplished in atmospheric stills, the thick extract

mass being finally dried in open kettles or evaporating pans. In spite of the fact that research has shown that many drug extracts such as henbane and cascara sagrada are impaired if not actually ruined by oxidation or by excessive heat, this process is still standard practise in many plants.

When the effect of heat and oxidation became generally recognized, the more progressive plants, though they have as a rule continued the ancient method of percolation, adopted vacuum stills, vacuum evaporating pans and vacuum shelf dryers for the concentration of drug extracts. In one or two instances extracts are run down to a dry state in vacuum stills equipped with agitators, sticking being avoided by means of "fluffing" a process that will be described below.

Vacuum concentration is, however, rapidly coming into its own in this country.

In Holland and in Germany vacuum extraction and concentrating processes are generally used together especially in the extraction and concentration of cinchona bark. But so far as we know Grove Laboratories Inc., manufacturers of the famous Bromo Quinine Tablets, is the first manufacturer in this country to install a complete, semi-continuous vacuum extraction and concentrating plant for *all* drugs, regardless of whether or not they are affected by heat or oxidation. In a subsequent paper the remarkable results we have obtained through the use of this equipment will be described in more specific detail.

In order to appreciate the benefits to be derived from new drug extraction processes already operating as well as from those in immediate prospect, it is essential to summarize basic operations. These are:

Preparing or grinding the drug.
Extraction.
Concentration.
Solvent recovery.

In some instance there are other auxilliary operations such as precipitation in the case of podophyllyn, but these are aside from the immediate subject of this paper.

In most instances the preparation of the drug requires grinding, a few being extracted without any preparation at all. Gravity percolation necessitates very fine grinding of hard, woody drugs such as mandrake and coarse grinding of soft or friable drugs like belladonna, henbane or rhubarb. In gravity and in vacuum percolation as well, fine grinding causes the drug, when saturated, to form a more or less impermeable bed through which the percolate travels very slowly. But hard, woody drugs, however, could not be extracted by gravity percolation at all if they were not finely ground. In vacuum extraction the size of the particle makes no difference because of the impregnation of the cells by the menstruum.

Because of this and also because of the length of time required for draining, it is impractical to grind finer than ten or twelve mesh when using existing vacuum extractors. In the case of gravity percolation the active principle is more or less dissolved out of the marc by saturation. In vacuum extraction processes, the menstruum is driven through the cells of the marc by impregnation. This is accomplished by putting the ground drug into the extractor and adding the menstruum. The mass is then mixed for a few minutes to distribute the menstruum and then a high vacuum is drawn on the extractor. This is maintained for ten or fifteen minutes. Its effect is to draw all the air out of the cells of the drug. The vacuum is then broken and the menstruum instantly saturates the drug particles and replaces the air withdrawn. The power of this phenomenon is such that alcohol can be driven straight through a board in a few minutes, and in principle, it is the same process which is followed in impregnating railroad ties with creosote. Observed under glass, the escaping air and gas keep the surface of the menstruum agitated until replaced by the menstruum, at which time the drug loses all buoyancy and sinks to the bottom of the container.

The set-up of the Grove system is as follows: a steam jacketed cylindrical mixing tank is used as an extractor and also as a dreg still. It is connected with a pair of filters and a percolate receiving tank and it is also connected with a condenser, through which vacuum is drawn on extractor by means of a suitable vacuum pump. Percolate lines connect the receiving tank with a sectional glass-lined tank of sufficient capacity to hold the several washes. This in turn is connected with an agitating vacuum still which has its own condenser and pump. Menstruum is made to move in either direction as required or to and from the raw solvent storage tanks through a single solvent line.

In operation the crude drug is loaded into the extractor. Vacuum is drawn on it and menstruum from the alcohol cutting tank is drawn in. The agitator is started and the mass is mixed for a few minutes under vacuum. The vacuum is then broken and when all is lost the filter lines are opened and the percolate run off. A series of washes are put through the drug in a similar manner. The percolate obtained is run into one of the glass-lined storage tanks from which it is continuously drawn into the vacuum still at a rate of speed about equivalent to the concentration speed. Recovered alcohol is returned to the storage tanks. When the thick extract mass is dry, that is, when it yields no more solvent or water, the agitator is stopped and a high vacuum is drawn and maintained on the still. In a few minutes the steam is shut off and the still is allowed to stand for several hours until it is cold. This operation causes the extract mass to swell up in a porous mass like a sponge. When it is cold the sponge breaks up into powder and can easily be run out of the still.

Not only is virtually all alcohol saved by such a system, but it is also practically dustless and it can be operated without heavy labor. Moreover, it has preserved the strength of extracts to such an extent that yields of various sensitive drugs have been increased to an equivalent of from fifty to more than one hundred per cent as compared with gravity percolation and

(*Continued on page 109*)

Feminine Hygiene Jellies

(*Continued from page 30*)

Disadvantages of this type of jelly: Adheres poorly to the vaginal and cervix. May be stringy.

All the above call for lactic and boric acids. In place of these other acids are used. Acetic, citric, tartaric, etc. Lactic is to be preferred because it is already present in the vaginal secretions and is therefore least likely to disturb. Boric acid helps to maintain the acidity of the jelly in the face of the protective colloids in the semen. It has, by itself, little or no value.

Popular belief to the contrary notwithstanding, quinine and oxy-quinoline sulphate have little or no spermicidal value. Because irritation is often traced to them in the formulas, I have omitted them from mine. Of the two, oxy-quinoline sulphate is to be preferred. It is used 1/8-1/5% in any of the above. It should be stirred into the finished jelly; the color will assure an even distribution. It dissolves readily in a little water.

In my opinion, all feminine hygiene jellies should contain an aromatic. For this I use a concentrated cologne 1-3000. This is helpful in maintaining the aesthetic acceptance on the part of the user. It is particularly useful with such agents as lactic, acetic and tartaric acids and with oxy-quinoline sulphate, the odors of which are not agreeable.

There is almost no limit to the chemicals used as spermicides. There is little or no reason for most of these. Frequently there is a good reason for omitting them because of possible toxicity and unknown effect or value.

There are also a diversity of bases in use. Chondrus is often added to cut down the glycerine and to increase the adherence. This has a disadvantage in that it spoils readily. Neutral soaps as bases are being studied. Potassium, sodium and ammonium soaps are too irritating to consider so that the field is limited to new developments and to the alcohol soaps. One advantage of the soap base is that it is itself spermicidal. Acid spermicides cannot be added to soap jellies.

Conclusions: There are several good formulas for feminine hygiene jellies available. As a rule the simple formulas are the most acceptable. No jelly should be placed on the market without testing its spermicidal power. It should also be tested for lasting qualities and for irritation. No unusual formula, either base or spermicide, should be used without first obtaining competent medical advice. All feminine hygiene jellies should be packed in glass or pure tin tubes.

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Astringent Lotions

Astringent lotions may be described as stronger toning lotions. They are popularly supposed to effective in refining coarse pores, but it is doubtful whether they are of much real value in this connection. Certainly they are not as effective as creams which remain on the skin all night and require massaging into the skin. Coarse pores are due to slackening of the muscles which control their expansion and contraction. If anything will restore their elasticity it is more likely to be massaging than either creams or lotions. Lotions however are probably more effective in correcting oiliness, which, with the blackheads that usually follow such a condition, is the primary cause of distended pores.

In compounding astringent lotions it is good practice to use a fairly high percentage of alcohol because the slight sting that alcohol imparts is associated in women's minds with an astringent effect. Another point in favor of high alcohol content is that the lotion is likely to remain clearer.

Here are some experimental types:

No. 1

Glacial acetic acid	2.00%
Zinc sulfate	.15 "
Alum	2. "
Glycerin	4. "
Menthol	.08 "
Alcohol	20. "
Water	71.52 "
Perfume	.25 "
	100.00%

No. 2

Alum	2.00%
Magnesium sulfate	4. "
Boric acid	2. "
Formaldehyde	.1 "
Glycerin	3. "
Alcohol	20. "
Water	68.7 "
Perfume	.2 "
	100.00%

No. 3

Aluminum chloride	2.00%
Boric acid	1. "
Glycerin	4. "
Alcohol	15. "
Water	77.75 "
Perfume	.25 "
	100.00%

The manufacturing procedure for astringent lotions is practically identical. The perfume oil is dissolved in the alcohol. The water soluble chemicals are dissolved in the water and the perfumed alcohol is stirred in. The lotion is mixed thoroughly and filtered.

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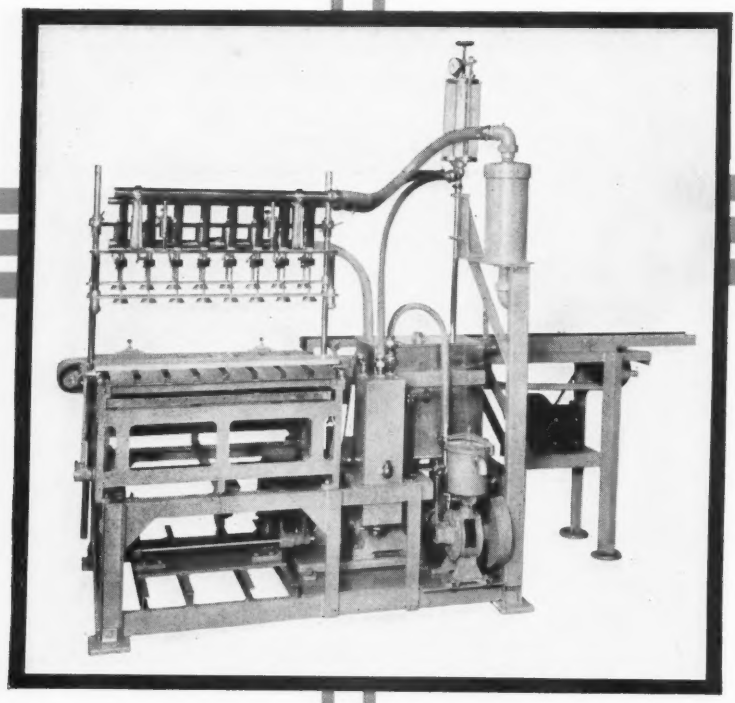

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PACKAGING NOTES

Edited by Elmer Sheets

Tin-Coated Tubes Again

That the manufacturers of collapsible tubes have very decided opinions on the status of the tin-coated lead tube is indicated by the following communications which have been received by this department since the publication last month of the first story on this controversial subject.

Charles A. Tome, vice-president of Bond Manufacturing Corporation, says that "the use of these tubes for certain products should be prohibited. I refer particularly to tooth pastes, shaving creams, cosmetics, and all drug articles.

"Certain other products such as shoe polishes, glues, pastes, etc. are in the writer's opinion, satisfactory for use in tin-coated tubes.

"The writer discourages the use of substituting the use of this cheaper tube for pure tin tubes for more than one reason. Take for instance the price of tin which fluctuates widely; for a great many years tooth paste and shaving cream manufacturers have purchased tin for tubes on a 40 to 50c price without further thought of increasing the cost of their tubes. Secondly, so far there has never been a substitute for pure tin for drug and cosmetic articles. Tin tubes hold the product better; are more ductile and flexible than any other material; and cause less chemical reaction than any other container, whereas on the other hand a tin-coated tube will cause chemical reactions in quite a number of products, plus the danger of the liability of the manufacturer of a certain product using a tin-coated tube who may be subject to law suits and damages caused by scrupulous or unscrupulous persons claiming damage to their health by lead poisoning caused by a tin-coated tube.

"For the above reasons we have never knowingly sold to any concerns, a tin-coated tube for a toilet or drug article and we are very rigid in that stand. But if demands are made on us for tin-coated tubes which I see must be accepted by quite a few of the trade, naturally we will have to follow that demand."

Benjamin B. Erickson, president of Consolidated Fruit Jar Company, states that "we have made coated tubes in addition to the tin, but we would hesitate very much making up many for tooth paste, as there is bound to be part of this tube, particularly the opening, which would not be covered with tin. There might not

(*Continued on page 51*)

Typical retail outlets of tubes of tooth paste and shaving cream selling for 10 cents, 15 cents, and two for a quarter.

MULTI-USE

By JOSEPHINE

There are quite a number of drugs and medicines on the market which lend themselves to various purposes. This manifold use is usually described in lengthy copy on the front or back label of the containers and in a similar flow of words in display and advertising matter.

We have come to believe that a new approach in the presentation of products of this sort is highly desirable. First of all, we feel rather strongly that anything that is praised too much, that is "oversold," that attempts to do and to achieve too much, is bound to defeat its own purpose. The Jack of all Trades has never been highly regarded and especially so in recent years in which there has been growing emphasis on specialization. On the other hand, if a product really happens to be possible and good for various purposes, there is, in our mind, no reason, why each of these uses should not be given all the individual attention and importance that it deserves. Instead of treating others than the main use that a product is known for as incidental, why not sell it for its various purposes in various dresses. A magazine changes its cover with every issue, dramatizing the content or the ideas it stands for in various changing ways. It still remains the same magazine however, because its title as well as its policy are expressed in one standard way.

Could we not do the same thing with merchandise. Could we not design labels for each use, and for one of these uses alone. Would not a treatment of this sort help to eliminate confusion, and, in fact, help to increase sales, simply because if a customer wants a preparation for athlete's foot, and if, on a bottle of antiseptic solution, you can see and read clearly that this antiseptic is specifically designed for athlete's foot, this person will buy that bottle of solution which is sold for that particular ailment and is not, incidentally also good for it.

Blue bottle. Black and white half-tone photograph. Brilliant red strips with white reverse plate printing. Double-shell or plastic cap matching either the color of the half-tone or the strips.

PACKAGING

VON MIKLOS, Ph. D.

We have tried to illustrate these ideas through the medium of cod liver oil. It is known as a product used for at least four purposes: to help children's bone construction; to build up general body strength; to prevent colds; and, which is a new discovery, to help the healing of wounds.

We are showing four photographic labels, each of which illustrates simply and dramatically the one purpose for which cod liver oil is sold in every particular instance. A healthy, lovely baby for use number one; acrobats who convey the highest idea of body strength, use number two; people on the street, hurrying along on a dreary day, use number three; and, a wound being dressed with a few drops of cod liver oil on a piece of gauze, use number four. Trade name, manufacturer and similar information stay the same; the illustration varies and opens new markets for new uses.

We have stated more than once in these pages that photographic illustrations on labels and packages are in many ways superior to all others. They help to tell the story at one glance; they dramatize the idea; they eliminate copy and play on the imagination of the onlooker who is most likely to identify his or her own case with the picture dsplayed.

The additional cost of labelling a commodity with several descriptions can not be prohibitive and we feel reasonably certain that the consideration of cost would be outweighed by additional sales. A manufacturer who would go in for this new way of presentation would, of course, have to do some research about the frequency of each of the uses of his product, a most interesting and significant phase of his work, which, taken as the basis of a selling campaign would create a scientific and most convincing approach to a new way of presenting versatile merchandise.

Blue bottle. Black and white half-tone photograph. Brilliant red strips with white reverse plate printing. Double-shell or plastic cap matching either the color of the half-tone or the strips.

ALL 3

DESIGN
QUALITY
SERVICE

ARE NECESSARY . . . IF YOU WANT FULL VALUE

WHEN YOU BUY GLASS CONTAINERS

● **DESIGN must be based on a thorough knowledge of public buying habits together with an understanding of production problems. QUALITY must come from careful selection of raw materials, the use of the most modern automatic machinery and electric annealing lehrs, and the scientific control of every step in the manufacturing process. SERVICE must include competent counsel on label and closure suggestions, complete facilities for providing corrugated shipping cases and available glass container stocks that assure prompt delivery. No one of these factors can stand alone. ALL 3 ARE NECESSARY. That is why *Onlzed* COMPLETE PACKAGING SERVICE is acknowledged to be the logical choice of manufacturers who pack their products in glass.**

YOUR INQUIRY IS INVITED. WRITE **OWENS-ILLINOIS** GLASS COMPANY, TOLEDO, O.

To keep effervescent preparations in such perfect condition that not a particle of their efficacy is lost requires a seal that excludes completely every trace of moisture. That is the job Anchor Amerseal Caps does for many of the important makers of such products. Consumers like Anchor Amerseals too because of their obliging habit of never failing to open or close with an effortless quarter turn. The famous Anchor Amerseal tight, positive seal and the ease and economy of application recommend them to wise packagers of all sorts of drugs, pharmaceuticals and fine toiletries. For these and kindred products Anchor's line of closures is the most complete on the market today... with a scientifically correct seal for every product, purpose and purse. Call the nearest office for samples and impartial closure advice.

Anchor Cap & Closure Corporation

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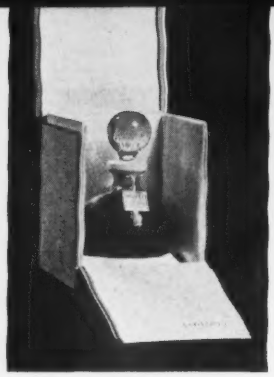
ANCHOR-CAPSTAN
★ GLASS CONTAINERS ★ CLOSURES
★ SEALING EQUIPMENT
★ RESEARCH ★ PACKAGE DESIGN
5 STAR SERVICE

Anchor Amerseals



DAYTIME FRAGRANCE is the name of Lentheric's newest perfume creation which is presented on a beautiful ivory colored molded tray.

LENTHERIC'S Bubble Bottle comes in blue, clear, amber or green. The glass is full of tiny bubbles and the whole bottle looks like one large bubble itself. Numero, Douze, Miracle, Asphodele, and Le Pirate are the perfumes bottled in this way.

UNITED DRUG CO. is offering what is probably the most expensive package in America in the 12" zipper Beach Bag designed by Roy Sheldon for the Shari cosmetic assortment. Outside is white woven zanzu cloth, trimmed with gold leather. Handles and zipper are gold. Inside is brown silk with circular mirror in top, merchandise platform is covered with bright green silk. Retail value of package is $6.00, assortment sells for $15.00.

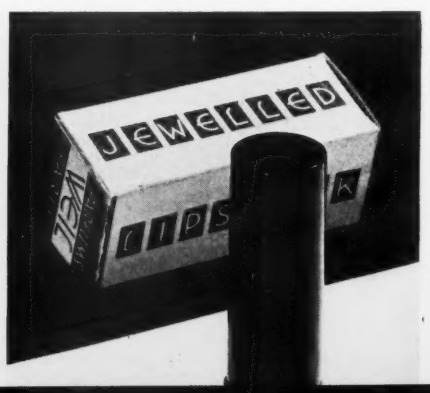
NELSON, BAKER & CO. have adopted two modernized containers for their products. Black caps on former containers have been replaced by green to harmonize with the green label on Camphor Ice Lotion, and by red to strengthen the appeal of the red and yellow label on Cosmetine. Cooper & Shower, Detroit, did the designing; caps are by Armstrong; bottles by Owens-Illinois.

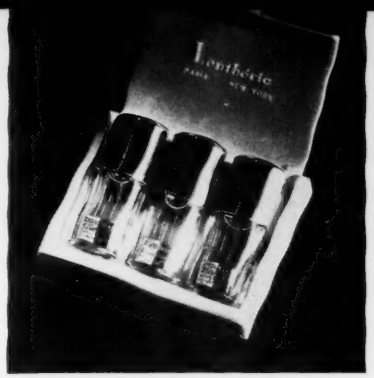
McKESSON & ROBBINS are introducing six new cosmetics packaged in the special design bottle shown here containing "Hairtone" Tonic. Other preparations in the group are: Milk of Almond Cream (shown on cover of this section); and four other "Hairtone" preparations, namely, Liquid Brilliantine, Soapless Oil Shampoo, Coco-Olive Shampoo, and Rose Hair Oil.

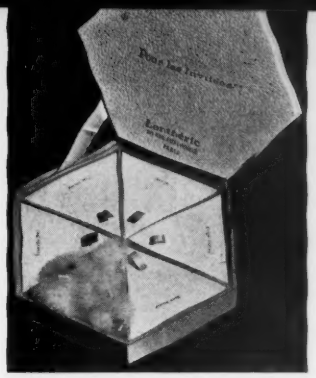
"CONFESSION", a new perfume—a quite different sophisticated odor—by Rallet is contained in a baccarat bottle holding about one and three-quarter ounces. The bottle fits into a moire case, a delicate rosewood shade lined with cream. This new perfume retails for $25.00.

NON-SPI'S new container, recently redesigned, is one of the most unusual for modern cosmetics. Spherical molded cap is an automatic applicator, as the top half unscrews to reveal a smooth molded applicator surface permanently fastened to the bottle, working through capillary action. When applicator is rubbed on the skin, liquid flows through these small holes. Photo courtesy General Plastics.

PARFUMS WEIL has introduced the "Zibeline Jewelled Lipstick" with a genuine solid ebony case and swivel set in rhinestones. This lipstick was designed by Paul H. Ganz of that company and was first retailed with the swivel set in diamonds, by Marcus & Co., New York jewelers, at $175. The rhinestone edition is now being retailed nationally at $2.





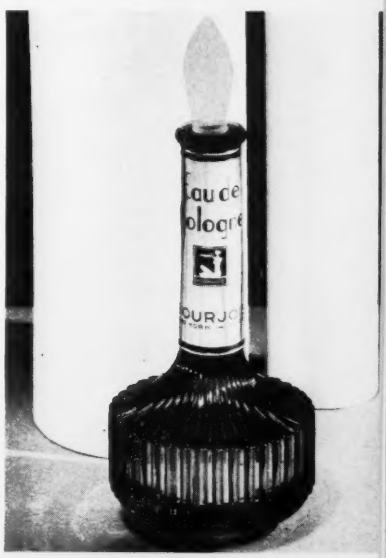


"TRICOLETE" is the name given to the plastic tray introduced by Lentheric as an accessory to hold three different bottles of perfume covering perfume needs for day and evening. It makes an excellent guest room innovation, as the size of the bottles are small.

'POUR LES INVITEES" is the name Lentheric has given to this charming guest room accessory. It is a hexagon shaped box containing five different shades of face powder, each under cellophane in its own little compartment. Other section holds five swansdown puffs in different colors. Each guest can choose her own shade of powder. Outfit is very attractive, being white with blue lettering and ribbons.

J. W. MARROW, Chicago, have a particularly attractive family of packages. Family resemblance is obtained by unity of color and design in containers, labels, and closures. All closures are the same shade of lavender. Molded caps for bottles, and double shell caps for jars are by Armstrong; jars are by Hazel-Atlas.

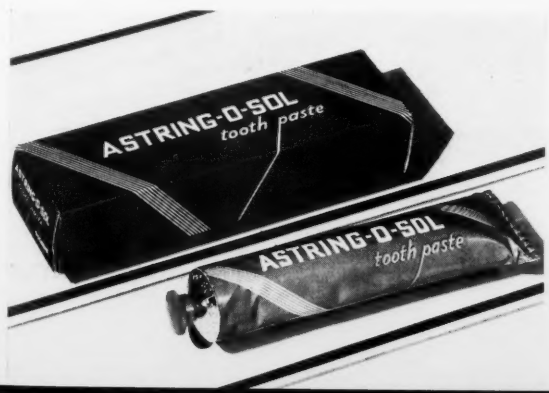
YARDLEY'S new triple compact is effective in silvertone metal decorated with a smart black and white enamel design in the center of which is the familiar Yardley trade-mark of the three lavender sellers in gold tone for contrast. In one set an additional lipstick is offered in evening shade. This is interchangeable with the day lipstick. The cases may be had with cake or loose powder.

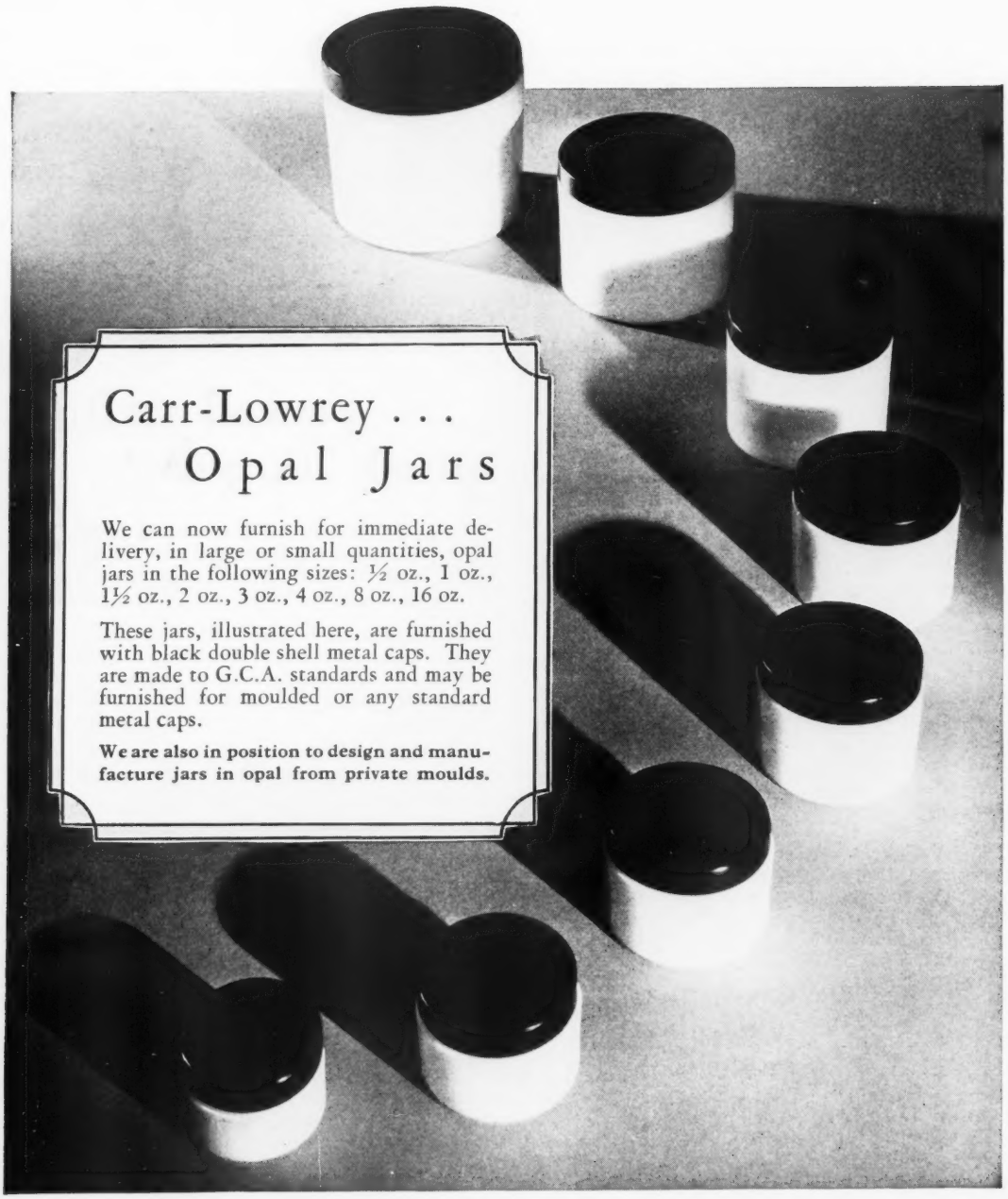


BOURJOIS' new Eau de Cologne is presented in a cut blue glass bottle with frosted glass stopper. It possesses a true Eau de Cologne odor. The attractive container may be used for other purposes when emptied, such as a bud vase or cordial decanter.

BONCILLA, Indianapolis, is offering a line of "Acquaintance" size packages which retail for ten cents. Numbers included in this new size are: Cold Cream, Vanishing Cream, Cleansing Cream, Skin Food, Lemon Cream, Silk-fine Face Powder, and Perfume. These new items are more generous and more attractive than have heretofore been offered by the company.

ASTRING-O-SOL TOOTH PASTE is a new offering of Frederick Stearns & Co. The large size tube is of blue background, with white and orange lettering. Carton is of similar colors.

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Opal Jars
We can now furnish for immediate delivery, in large or small quantities, opal jars in the following sizes: ½ oz., 1 oz., 1½ oz., 2 oz., 3 oz., 4 oz., 8 oz., 16 oz.
These jars, illustrated here, are furnished with black double shell metal caps. They are made to G.C.A. standards and may be furnished for moulded or any standard metal caps.
We are also in position to design and manufacture jars in opal from private moulds.

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Telephone: WHitehall 4326

POWDER PACKAGE : 1935

Because it is more than just a container, this molded Durez box swings many a sale for United Drug's Cara Nome Powder. Its sleek, lustrous Durez finish . . . and its clean, neat design . . . will catch many a lady's eye. For it offers, in addition to the powder, an attractive accessory for her dressing table . . . just enough of an "extra added attraction" to swing the hesitant lady to Cara Nome. It's such sales-appeal that has made Durez packages so outstanding.

Molded Durez boxes are permanent—their smooth, lustrous finish never dulls, peels or wears off, because it's part of the piece—and is not applied. They are strong, yet light in weight . . . and their popularity with the buying public is unquestioned. If you'd like more complete information on this modern form of packaging, write General Plastics, Inc., 350 Walck Road, North Tonawanda, N. Y.

★ DUREZ ★

THE MODERN PACKAGING MATERIAL

CLOSURES molded of Durez offer all kinds of possibilities. This two-piece cap for Non-Spi not only compliments the design of the bottle but also performs the functions of both closure and applicator.

JARS molded of Durez are safe, shatter proof and appealing. Their light weight reduces shipping costs and their smooth surface is pleasant to the touch.

Closure News which deals with the new and interesting in the packaging field, will be mailed to you free every month if you'll just send us your name and address.

The new DOROTHY GRAY "Continental" compact in gold and copper finish giving a two-shades-of-gold effect comes in double and triple cake powder. The case boasts of a large mirror and is thin and light enough to occupy very little room in your purse.

GIBBS & COMPANY, Chicago, distributors of the Bree line of cosmetics, have packaged this line in a refreshingly attractive style. A notable feature of the design employed on the jar closure is the repetition of the Bree signature as it appears on the label with the straight-away flourish. Both molded and metal caps are in the same apple-green color. Caps are by Armstrong, bottles by Owens-Illinois.

PEBECO TOOTH PASTE of a new "Triple Action" formula is now offered by Lehn & Fink. The Triple Action combines the properties of three new ingredients, namely, a new whitening agent, a new antiseptic, and milk of magnesia. Product is offered in two sizes, 25c and 10c. Old type Pebeco Tooth Paste will still be available for those who prefer it.

BEAUTY COUNSELORS, Detroit, are expanding their line of beauty preparations, having recently introduced the manicure set shown here. Fitted snugly into a shiny molded black plastic box are four bottles, orange wood sticks, and emery boards. Entire kit measures about 3" x 3¾", one inch deep, being ideal for dressing table or traveling. Photo courtesy General Plastics.

Packaging Notes

(*Continued from page 41*)

be enough lead to affect any person, but again there might just be a possible chance that someone would be harmed by the lead."

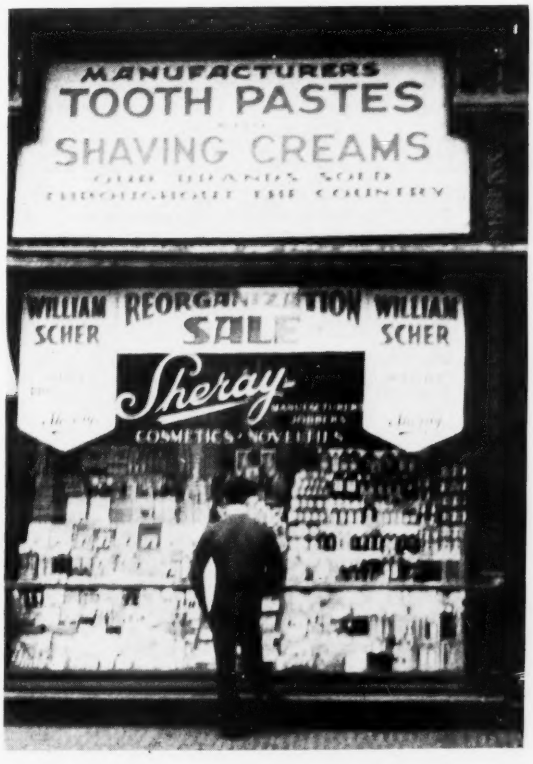
"We consider tin-coated tubes to be a shoddy piece of merchandise," says Frederic Remington, president of Peerless Tube Company. "At this time we are not prepared to be committal as to our future policy but we do everything we can to discourage the sale of such tubes although if competition forces us to manufacture them we should certainly do so, pending definite decision by the Department."

According to O. B. Case, Pennsylvania Collapsible Tube Company, "the use of tin-coated lead tubes for shaving cream, tooth paste, etc., has been called to our attention by a number of consumers who have purchased these low-priced articles and found that in many instances the product was turning black in the tube. The consumer, of course, was not familiar with what caused this and raised the question with us as to what is the reason for it.

"We have never produced anything but pure tin tubes for drug and toilet preparations and consequently have been very much surprised to find that tin-coated lead is being used for such products.

"Several weeks ago we wrote to the Pure Food and Drug Commission asking for a statement from them in regard to using tin-coated lead tubes for preparations of this character, but as yet have received no comments from them.

"As far as we know, the use of this class of tube has been confined to products where contamination would not be a menace, or else by concerns who are putting out tooth paste and shaving cream in packages which imitate by color or design advertised products and which have cheapness as their main selling appeal."



A wholesale distributor of 48-to-72-cents-per-dozen tubes of tooth paste and shaving cream.

"We have read with interest your article on tin coated tubes," says R. M. Kenah, vice-president, Standard Specialty & Tube Company. "There are several statements made in this article, which are, in our opinion, misleading. You give the impression that tin coated tubes are in some sense questionable merchandise. You also speak of tin coated tubes as being something new, having been developed in the last year or two.

"Our company was one of the first manufacturers of tin coated tubes and we have been selling them for about twenty-five years. They have been used extensively for certain types of pharmaceutical products and we certainly see nothing "shady" in their use. It may not have been your intention to class them as such but your article certainly gave that impression.

"We also note a few minor errors in your article. You speak of tin selling for 25 cents a little over a year ago. According to our records the last time "Straits" sold for 25 cents was April 1933. You speak of a 4½" tin coated tube giving a saving of 50c per gross. Actually the saving on the 1 x 4½" size is nearly $1.00 a gross.

"Tin coated tubes were developed for packaging products which are rather mild in their action. In appearance they are identical to tin tubes. As mentioned above they are used extensively in the pharmaceutical trade. We do not claim, however, that they are suitable for all products. They were not intended for tooth paste or shaving creams, although they are perfectly satisfactory for some tooth pastes and some shaving creams, especially brushless shaving creams. You might be interested to know that for years we have sold certain customers tin coated tubes in limited amounts for tooth paste. So far as we know they are entirely satisfactory.

"Regarding the percentage of tin we would say that we have made exhaustive tests and find that increasing the percentage of tin beyond a certain point does not result in the tube being any better. The amount of tin used is not nearly as important as the proper distribution of it, so as to obtain a complete covering.

"We believe that our tin coated tube is superior to any on the market but realize that there is still opportunity for improvement. At the present time we are conducting experiments with the object in view of extending the field of these tubes."

"It is our opinion" says J. Kronman, of Victor Metal Products Corporation, "that some manufacturers of tooth paste or shaving cream are apt to jump too quickly into the use of a container such as tin-coated

(*Continued on page 54*)

DODGE *Closures*

Designed to Guard the Integrity of the Contents

MOLDED SCREW CAPS

in a Variety of Styles and Colors

Dodge Molded Caps (Continuous Thread) are made of high-grade plastics in a full range of sizes and a wide variety of colors. Special design can be molded in the top. Standard or special liners suitable for your product are held firmly in place by our construction and assembly method.

DODGE CORK CO., INC., LANCASTER, PA.

Three modern styles available in full range of sizes. Medium and tall caps also in a variety of styles.

Dropper and applicator caps, either pin or well type, can be supplied.

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- Available in small or large quantities. Jars: Clear, Opal or Colored, in all standard sizes—any quantity from stock.
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(3) The *Scientific* facilities of the New England Collapsible Tube Company include a fully equipped laboratory manned by expert scientists who constantly check the quality of the materials used in manufacturing the tubes and decide what the ideal metal would be for a given product. Their services in any capacity are at your disposal.

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Where your product is a cream, a cosmetic requiring a beautiful, well-designed container that will give individuality and personality to your product, let our design department cooperate with you in developing a striking container.

Our fifty years experience in the manufacture of collapsible tubes is cordially placed at your disposal.

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F. L. Butz	Charles A. Rindell, Inc.	R. M. Stevenson
393 Seventh Ave.	64 West Randolph St.	506 Donovan Bldg.

Packaging Notes

(Continued from page 51)

tubes, before its merits have proven sufficient as a container for these products, and the only thing that prompts them to do this, is the question of price. Up to the present, we do not know of any reputable manufacturer of tooth paste or shaving cream, who is packing in tin-coated tubes."

"So far as the Wheeling Stamping Company is concerned," says B. E. Stover, sales manager, "we are makers of collapsible tubes and of course if at this or future period the demand from the trade calls for any particular kind of tube, whether it happens to be of any metal now in common use or any other substance of metal not now in common use, then it will be our effort to prepare ourselves to take care of such demand. You are no doubt acquainted with past developments of lead tin-coated tubes in this country, that is some of the pharmaceutical concerns started to use them during the war period when the price of tin became abnormally high, say over $1.00 per pound, but they soon discontinued this practice for reasons of their own."

H. S. Darlington, president of A. H. Wirz, says "I have quite definite ideas in regard to the proper use of tin-coated lead tubes. Regardless of the percentage of tin used in these tubes they necessarily are an inferior substitute for a tin tube. For any product that can safely be put up in a lead tube, tin-coated tubes can safely and properly be used, but if a lead tube is unfit for use with a certain product then the conservative feeling is bound to be that a tin-coated tube should not be used.

"While there is a considerable difference in the completeness of the tin surface between different tin-coated tubes and quite naturally the tube having the lead most completely covered by tin would be relatively safer than one in which a considerable amount of lead was exposed, this is only a matter of degree and I do not believe that any tin-coated tubes will have a 100% covering of the lead by the tin on the inside of the tube. A specification covering the minimum percentage of tin, in my opinion, will not necessarily give the desired protection, as a tube with 10% tin content by analysis may have more lead exposed than one having but 5% tin content by analysis. This depends on the proper technic in the manufacture of the tin-coated metal slugs, as well as in the manufacture of the tin-coated tubes themselves.

"In general, I feel that while there may be some cases where a manufacturer has been able to safely use tin-coated tubes either because he has been able to change his formula or was already using a formula in which lead absorption by the product was not active, still the indiscriminate use of tin-coated tubes for products that are used in or on the body is very dangerous.

"The fact that Germany is forbidding the use of pure tin tubes and encouraging tin-coated tubes is not of such great importance when the causes for this situation are analyzed. Germany, during the war, found it necessary to turn to paper instead of cotton for some articles of clothing, but after all, paper clothing and tin-coated tubes are both inferior substitutes which this country has not yet had to resort to."

We wish to thank the above-named gentlemen for their contributions to the discussion of this subject and to invite others to make use of the open forum offered by our pages.

Merchandising with Photographs

An unusual exhibition of photography for use in display, promotion, advertising, decoration and packaging opens on January 21 in the Mezzanine Galleries of Rockefeller Center, sponsored by the National Alliance of Art and Industry.

The ideas and models displayed there were conceived and executed by Marian Stephenson and Josephine von Miklos. Marian Stephenson is one of the leading fashion women, nationally known in connection with fabrics. For the past four years she has used her cameras catching glimpses of the smart things that will influence the mode. Some of the leading stores of this

country have used her material and have been the first to do photographic murals for merchandising.

Josephine von Miklos, a Viennese, who has lived in this country for four years, has, like other European photographers of the new school, developed a direct approach to photographic problems and a utilitarian use for them. She believes in photography as an essentially modern medium for design and decoration and as a background for the presentation for the things of daily living. Simplicity and the elimination of the

THE SCIENTIFIC AMERICAN CYCLOPEDIA of FORMULAS

Edited by ALBERT A. HOPKINS

THIS valuable work is a careful compilation of about 15,000 selected receipts and processes, many of which have heretofore been secret. Nearly every branch of the useful arts and industries is represented. Never before has such a large collection of valuable formulas, useful to every one, been available for general use. Includes 56 pages devoted entirely to toilet preparations and perfumes—800 formulas.

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National Collapsible Tubes

But these being peace times, we must content ourselves with saying:

Ask us for complete tube information—styles, types, caps, sizes, designs, etc. We will gladly send catalog.

National Collapsible Tube Co.
PROVIDENCE, R. I.

New York Office: 331 Madison Ave. Phone Murray Hill 2-0339
Pacific Coast Office: 6370 Franklin Ave., Hollywood, Calif.

superfluous by dramatization of the essential are the keynote of her work. Her interests have taken her into the fields of designing in addition to photography and much of her work has been featured during the past year in the pages of THE DRUG & COSMETIC INDUSTRY.

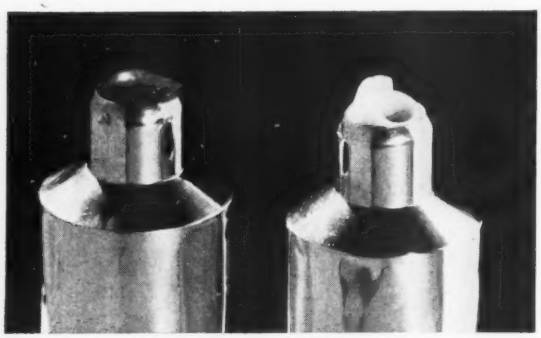
Invitations to this exhibit are available upon request to this publication.

"No-Kap"

This new tube closure device is constructed on the ball-and-socket principle. Our illustration shows two views of it—one open and the other closed. The little lip serves as a lever to open and close the device and, when open, the hole through the ball matches up with the hole at the top of the tube. The ball itself is seated on a washer which prevents any escape of the product except when open. An added item of interest is the fact that the established cost of a closure of this sort is only moderately higher than that of the usual molded cap.

The device has been put to severe tests without any indication of leakage. In one case a mixture of 50 per cent alcohol and 50 per cent glycerin was held very successfully by this closure over an extended period of time. In another case, a nationally advertised tooth paste was subjected to a temperature high enough to turn the paste to liquid, but again there was no leakage through this closure.

There are other interesting applications of this device in drug and cosmetic packaging. It can be used on a



bottle, with the ball made so as to hold a measured dose, and on a tooth powder container to deliver a measured quantity on a toothbrush.

An American company, No-Kap Closures (U. S. A.) Inc. has been formed with headquarters in Providence, R. I. The "No-Kap" closure will be available to all tube manufacturers and their customers on an exclusive franchise plan, and is obtainable in all types of plastics in a variety of colors. H. R. M. Gordon, 331 Madison Avenue, New York is handling the promotional work and free sampling services are available through his office. The National Collapsible Tube Co. has done the technical and experimental work and is now manufacturing tubes with the new feature.

Technical Packaging Developments

All of the comment which has come to our attention concerning the new series of awards which will be given at the Packaging Exposition this year has been favorable.

It is pointed out that the real contributions which have been made to packaging have not come from designers but from those responsible for new technical contributions. Without these latter contributions, packaging would have long since become a static thing.

Package design is simply part of the general movement for improvement in all types of industrial design. At the beginning of the depression, when the maintenance of volume was all-important, manufacturers began to think in terms of improved packages, since they could no longer improve the product and since they had reached a point of diminishing return in advertising. Through this demand for package improvement and change the package designer came into his own, just as the industrial designer became recognized in the general industrial field through the same sort of influences.

This is not to detract from the accomplishments of the industrial designer for it was he who proved through actual experience the extent to which and the conditions under which industrial design pays. His work has been conspicuous in its originality and he has brought recognition to the importance of design in industry.

However, the real contributions to packaging have come from technical developments in packaging materials, to those who have been responsible for the production, engineering, and laboratory development of packaging technique. There can be no question, for example, that transparent papers have added more to packaging art, and done more to arouse consumer interest, than any package design you could possibly think of. Through the use of transparent papers, hundreds of items to which no attention had ever been paid before suddenly became aware of their need for packaging. As a result, packaging generally was lifted to a new high plane.

The development of plastics and the use of certain of the metals has also tremendously increased the range of packaging through the appeal of beauty, sales, convenience, etc. The tremendous amount of work which has been done on bottle seals in the way of research on liner materials and engineering research in the mechanical perfection of cap and thread, as well as contributions in appearance through enamel, plastic, and double-shell caps, has improved the packaging of literally thousands of products.

Technical contributions and design should rightly go hand in hand when the awards are handed out as they are inseparable when packaging progress is to be considered. Technical developments are primarily of value in increasing efficiency, economy and beauty and in keeping the product in perfect condition until it reaches the consumer. In the final analysis, they furnish new instruments with which the designer works and without which package design would become static.

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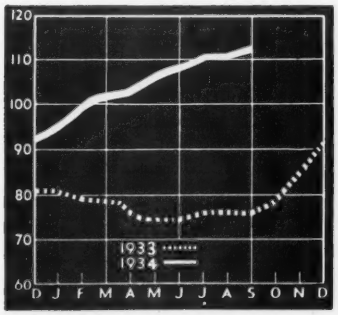
ALCOHOL NEWS

JANUARY ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1935

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

		1934	1933
PRODUCTION			
1000 proof gals.	Jan.-Sept.	122,247	100,309
	September	15,636	13,968
	August	13,823	12,482
SALES			
1000 proof gals.	Jan.-Sept.	109,947	80,454
	September	17,821	13,268
	August	13,156	10,232

ALCOHOL PRODUCTION GAIN IN '34 REFLECTS BUSINESS RECOVERY

The marked increase in the production of industrial ethyl alcohol, accompanied at the same time by reduction of inventories on hand at producers' plants, that have been reported for the first nine months of 1934 is a good index of general business recovery for both the staple and luxury classes. Because industrial alcohol is a basic raw material, either directly or indirectly for practically all modern manufacturing processes, the sharp gain in production would naturally tend to reflect improvement in a long list of important industries.

While the actual breakdown of industrial alcohol withdrawals by consuming industries has not yet been released, it is expected that a large majority of consumers will show substantial increases.

ANTI-FREEZE ALCOHOL RULING

When anti-freeze alcohol is sold under a trade or brand name, certain approved substances must be added so that it will not constitute a sale of an approved anti-freeze formula under a trade name according to a recent ruling of the Commissioner of Internal Revenue.

The sale of an approved alcoholic anti-freeze solution under a proprietary name, free of completely denatured alcohol restrictions must be limited to drums and cans.

Aliphatic aldehydes, are well known as perfume ingredients. In perfumery, Aldehyde C_{16}, the lactone of oxynonylic acid, is limited to a few fancy bouquets and odors of the tuberose and gardenia type, but when mixed with a small amount of color, alcohol and water, it produces a delicate cocoanut flavoring compound.

U S I

The incorporation of organic solvents in soaps is the subject of a recent foreign patent. The solvents are emulsified in water with the aid of mineral-oil sulphonic acids and the emulsion mixed with soap; or a solvent containing the sulphonic acids in solution may be mixed with the soap according to the specifications.

CODE CHANGES FOR ALCOHOL AND CONSUMING INDUSTRIES

All Alcohol Makers Support Code

All members of the industrial alcohol industry whose principal line of business is governed by some code other than the Industrial Alcohol Code are now obligated to contribute to the support of the Industrial Alcohol Code Authority under a recent ruling of the National Industrial Recovery Board.

This order terminates for the industrial alcohol industry the exemption conferred by Administrative Order X-36 which prohibited multiple code assessments.

Cosmetic Code Amended

It is reported that members of the perfume, cosmetic and other toilet preparations industries, the bulk of whose products were produced under some other code, are now required to contribute to the support of the code authority for the cosmetic industry unless sales of products manufactured under the cosmetic code during 1933 amounted to $5000. or less and represented 5% or less of the total net sales of such members.

This order is issued as an amendment to an earlier order terminating the exemption of such manufacturers from paying fees to this code authority.

Drug Code Authority Approved

The National Recovery Administration has approved the following as members of the Code Authority for the pharmaceutical and biological manufacturing industries:

Carl N. Angst, Pitman-Moore Company; Horace W. Bigelow, Parke, Davis & Co.; Clifford V. Haver, Haver-Glover Laboratories; John G. Searle, G. D. Searle & Co.; and A. Homer Smith, Sharp & Dohme, Inc.

METHOD OF GAUGING CONTENTS OF INDUSTRIAL ALCOHOL DRUMS

Provides Practical Inventory Check

The following method for determining the contents of a standard 54-gallon industrial alcohol drum provides an easy and practical way of calculating the number of gallons in the container at all times and requires no other apparatus than an ordinary yard-stick.

In the table shown below, figures are given for measuring the contents when the drum is in either the vertical or horizontal position. After the bung is removed from the top of the drum, the yard-stick, graduated in inches, is inserted to the bottom of the drum, withdrawn and the number of wet inches noted. The temperature is noted at the time of reading (if the temperature of the contents of the drum should differ appreciably from the room temperature, actual temperature of the contents should be noted). Then refer to the temperature column in the table below, comparing the temperature reading with the number of wet inches. Where the two columns intersect the number of gallons in the container is recorded. A simple mathematical calculation will reveal corrections for fractions of an inch or intermediate temperature reading.

For example, a drum in the vertical position shows a stick reading of 18½ wet inches and a temperature reading of 55° F. By referring to the 18 wet inch and the 50° F. columns, it will be seen that the drum would contain 31.5 gallons. Correcting for the intermediate temperature (55° F.), at 60° F. the drum would contain 31.3 gallons, so the intermediate temperature reading would approximate half the difference, or 31.4 gallons. Similarly, correcting for the fraction of an inch, the difference between 18 and 19 wet inches is 1.7 gallons at

(Continued on next page)

TABLE FOR GAUGING CONTENTS OF INDUSTRIAL ALCOHOL DRUMS

DRUM VERTICAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
1	1.7	1.7	1.7	1.7	1.7
2	3.4	3.4	3.4	3.5	3.5
3	5.1	5.2	5.2	5.2	5.3
4	6.9	7.0	7.0	7.1	7.1
5	8.7	8.7	8.8	8.8	8.9
6	10.4	10.4	10.5	10.5	10.6
7	12.1	12.1	12.2	12.3	12.4
8	13.8	13.9	14.0	14.0	14.1
9	15.5	15.6	15.7	15.8	15.9
10	17.2	17.3	17.4	17.5	17.6
11	19.0	19.1	19.2	19.4	19.5
12	20.7	20.8	20.9	21.1	21.2
13	22.4	22.6	22.7	22.8	23.0
14	24.2	24.3	24.4	24.6	24.7
15	26.0	26.1	26.3	26.4	26.6
16	27.6	27.7	27.9	28.1	28.3
17	29.4	29.6	29.7	29.9	30.1
18	31.1	31.3	31.5	31.7	31.8
19	32.9	33.0	33.2	33.4	33.6
20	34.5	34.7	34.9	35.1	35.3
21	36.2	36.4	36.7	36.9	37.1
22	37.9	38.2	38.4	38.6	38.8
23	39.6	39.9	40.1	40.4	40.6
24	41.5	41.7	41.9	42.2	42.4
25	43.2	43.4	43.7	43.9	44.1
26	44.9	45.1	45.4	45.7	45.9
27	46.6	46.9	47.1	47.4	47.7

DRUM VERTICAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
28	48.3	48.6	48.9	49.2	49.4
29	50.1	50.3	50.6	50.9	51.2
30	51.7	52.0	52.3	52.6	52.9
31	53.5	53.8			

DRUM HORIZONTAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
1	0.8	0.8	0.8	0.8	0.8
2	2.4	2.4	2.4	2.5	2.5
3	4.4	4.5	4.5	4.5	4.5
4	6.8	6.8	6.9	7.0	7.0
5	9.5	9.5	9.5	9.6	9.7
6	12.3	12.3	12.4	12.5	12.6
7	15.3	15.4	15.5	15.6	15.7
8	18.4	18.5	18.6	18.7	18.9
9	21.6	21.8	21.9	22.0	22.2
10	25.0	25.1	25.3	25.4	25.6
11	28.3	28.4	28.5	28.8	29.0
12	31.6	31.8	32.0	32.2	32.4
13	34.9	35.1	35.3	35.5	35.7
14	38.1	38.4	38.6	38.8	39.0
15	41.2	41.5	41.7	42.0	42.2
16	44.3	44.5	44.8	45.1	45.5
17	47.1	47.4	47.6	47.9	48.2
18	49.7	50.0	50.3	50.6	50.9
19	52.1	52.5	52.7	53.1	53.5

Prepared Monthly by the U. S. Industrial Alcohol Co.

ADVERTISEMENT—*This entire page is a paid advertisement.*

JANUARY ★ **ALCOHOL NEWS** ★ 1935

USES OF PECTIN IN COSMETICS

The use of pectins in a number of important cosmetic products seems to be increasing and further extension of their use is in prospect.

In aqueous solutions, pectins are said to possess all the intrinsic characteristics of colloids and have a very beneficial action on the skin. They appear to have an affinity for the cellular structure of the skin and human hair. These colloidal solutions of pectins are readily absorbed by both the skin and hair and are not accompanied by any chemical reaction which accompanies the use of alkaline substances. Another advantage is that the pectin substance has the power of neutralizing any excess alkali that may exist.

It has been adopted for use in latherless shaving creams, and when mixed with alcohol or water, can be used with advantage in thickening dentifrices, etc.

INSULIN BY NEW PROCESS

A new process for the extraction of insulin has been patented and assigned to the free use of the public by its inventors.

Insulin is extracted from the roots of certain plants with hot water. The liquid is then treated with a suitable basic oxide, hydroxide or carbonate. Excess of the base is removed together with precipitated impurities by filtering and the liquid is then treated with carbon dioxide to neutralize further and purify it. The precipitate is removed and the liquid concentrated in a vacuum still. It is then heated to 90—95°C, and on cooling to room temperature, the insulin separates out. Final purification follows.

GAUGING ALCOHOL DRUMS

(Continued from preceding page)

50° F. One-half of the difference, or .85 gallons, is therefore added to the figure of 31.4 gallons to compensate for the extra ½ inch on the stick reading, giving a total of 32.25 gallons, a close estimation of the contents of the drum.

The tables were prepared by the U. S. Industrial Alcohol Co. for use in determining the contents of a standard 54-gallon drum of SUPER PYRO Antifreeze, but work equally well for other industrial alcohols, both completely denatured and specially denatured. Additional copies of the table are available.

Sodium sesquisilicate, a new cleaning agent, is suggested as suitable for cleaning industrial glassware of all kinds where hand contact is not involved. The product is claimed to have wetting power against glass equal to that of metasicilate. It is also suggested as suitable for heavy duty cleaning of oil-soaked floors, etc.

UNUSUAL ALCOHOL DERIVED CHEMICALS

Collodion

Collodion is a "specialty" product: not an alcohol-derived chemical. Collodions are essentially thin-bodied solutions of nitrocellulose in a mixture of ether and ethyl alcohol, with or without the addition of other ingredients as are listed below. However, because of the highly specialized uses of these products, they are included in this series.

Particular attention is called to the extreme purity of the raw materials and the uniformity of the finished collodions, which have regularly been manufactured by the U. S. Industrial Chemical Co., Inc., for a number of years.

Collodion U. S. P.

Collodion U. S. P. is made by dissolving nitrocellulose in ether-alcohol mixture according to the standard U. S. P. formula:

Pyroxylin	40 gm.
Ether	750 cc.
Alcohol	250 cc.
To make about	1000 cc.

Pharmaceutical firms find considerable use for this product in the manufacture of many medical and proprietary products. By reason of its use in surgical work where extreme purity is required, great care is taken in the selection of the constituents and in the process of manufacture.

Collodion Flexible U. S. P.

Collodion Flexible is Collodion U. S. P. plasticized with camphor and castor oil according to the following U. S. P. formula:

Camphor	20 gm.
Castor oil	30 gm.
Collodion (U.S.P.)	950 gm.
	1000 gm.

Its uses are substantially the same as for Collodion U. S. P. Some manufacturers, however, prefer the Collodion Flexible as a base for certain proprietary and medical products.

Photo Collodions

Photo Collodions are specially prepared for the manufacture of photographic emulsions and are usually compounded on buyers' specifications. However many users have now standardized on the so-called 2½ oz. and ¼ oz. solutions. They are compounded of pyroxylin in a mixture of equal parts of ethyl alcohol and ether.

Because of the extreme delicacy of emulsions and photo-engraving technique, extreme care is taken by U. S. I. to insure absolute purity.

TECHNICAL DEVELOPMENTS

Soap cakes with molded plastic tablets in the center are being introduced in Europe. The tablets carry the manufacturer's trade mark and are intended to remind the user that when the cake is nearly used up, he should again purchase the same brand.

U S I

A water-jacketed mold for cooling lipsticks and suppositories has been placed on the market. It is equipped with one tube for direct connection with a water-tap and another for draining. Thus, quick chilling may be secured without the necessity of moving or handling the mold.

U S I

An electrical stethoscope, designed to transmit most efficiently at low audio frequencies (rumbles, thumps, etc.), has a self-contained microphone and amplifier. Aside from medical diagnosis, it has applications in vibration studies and acoustic tests.

U S I

In the preparation of stearate creams, triethanolamine has been used experimentally to replace potassium carbonate with the reported result that when the amine is used, the tendency of the cream mass to foam or overflow during manufacture is eliminated and there is no formation of lumps.

U S I

A new insulating material is reported as both opaque against X-Ray current and suitable for high tension current use. It can be molded into any desired shape and is adaptable for tube shields or for enclosing an entire X-Ray room.

U S I

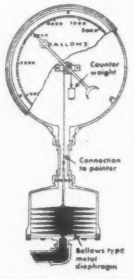
A "rheumatism oil," highly prized in China as a cure for rheumatism, is extracted from rattlesnakes. A recent shipment of this unusual raw material, consisting of some 200 rattlesnakes pickled in alcohol, was sent to China to be used for this purpose.

U S I

Solutions of vitamin D in organic solvents such as alcohol and ether, in vacuo, may be stabilized by the addition of 10-25% by volume of vegetable or animal oils, sesame oil, cod-liver oil, lard, etc., according to a process recently patented. This is said to be of particular value in the continuous manufacture of vitamin D by irradiation.

U S I

A liquid gauge, operating on converse principle of barometer bellows, is now on the market. The liquid in a tank is connected by a tube to the metal diaphragm located at the bottom of the gauge which in turn is connected mechanically to the indicator. As the liquid in the tank is raised, the pressure expands the diaphragm which change is recorded by the indicator. Measurements may be in any desired terms, i.e., gallons, pounds, barrels, etc. The gauge is calibrated at a definite predetermined temperature, to allow for corrections due to volume changes caused by changes in temperature.



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ETHYL ALCOHOL

SPECIALLY DENATURED-*All Formulas* • COMPLETELY DENATURED-*All Formulas* • ANHYDROUS-*Denatured* • ABSOLUTE-*Pure*

SOLOX-*The General Solvent* • PYRO-*The Standard Anti-Freeze* • SUPER PYRO-*The Rustproof Anti-Freeze*

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Multi-Use Packaging

We want to call your particular attention to the new series of articles which Dr. von Miklos begins with this issue. This series will offer an entirely new departure in packaging and merchandising technique. It will make use of photographic packaging, but only incidentally, and because photographs emphasize most dramatically the uses of the packaged product.

Many products of this industry are truly manifold in purpose. Their advertising campaigns are determined by the season of the year or the territory in which they are to be sold. Yet the package itself, because it must cover all of the uses, can cover none of them well, with the result that the label gives the distinct impression that it is a cure-all. The premise upon which Dr. von Miklos new series is based is that the package may continue to be characteristic and yet at the same time have an interchangeable photographic panel which will serve to dramatize one particular use of that product, thus tying up with the current advertising, or the season of the year, or the territory in which the product is sold.

In the case of cod liver oil, for example, the package might emphasize its use for growing children, or its use to build resistance against colds, or its use for maintaining general bodily health, or its use as a dressing for wounds. The retail distribution would require a little more care in order that packages sent to dealers in the south should not be those emphasizing cold prevention, for example. The advantage, of course, is the one of greater ease in merchandising a product which is obviously, from its appearance, designed to do the one thing which the buyer is looking for at the time he buys. And, who is there to say that he will not buy two bottles—one to build his own resistance against colds, and another to build a healthy body for his baby?

Glassine Handbook

Everything you could possibly want to know about glassine papers is contained in an attractive portfolio just published by Riegel Paper Corporation, New York. This portfolio classifies a considerable number of packaging papers, and gives the technical information on the manner in which they may be used, as well as the technical qualities found in them. The whole thing is in very compact form, made easy for filing and easy reference, and should be a standard part of your packaging library.

Streamlined Pills

Despite its rapid strides, modern industrial design has not yet invaded the field of pill manufacture. During the coming year *Packaging Notes* promises to lead the fight for more modern design in pills and in fact will create an award to be presented on the last day of December, 1935, to that forward-looking manufacturer who first presents this slightly goofy world with a streamlined pill.

Directions in Verse

From time to time we have had the pleasure of calling your attention to the fact that our good friend George Bunting addresses his stockholders in verse when making his annual report on Noxzema's progress, and, of course, you are familiar with the rhymes which Burma-Shave uses in its advertising, but we believe Purity Chemical of Detroit to be the first to use a rhymed direction label. It goes like this:

DIRECTIONS

Put some water on your face,
Put some "Nu-Shave" in its place,
Wet again but don't rub in,
Now slip the whiskers off your chin!

This may be the way out for manufacturers harassed by the Food and Drugs Administration's attitude on label statements. Something along these lines might floor the Department's fair-haired boys:

DIRECTIONS

Just take a spoonful twice a day,
Whene'er you're feeling that-a-way,
For many years its cured an ill,
(Sh!) Mentioned in the Tugwell bill.

Caps to Match the Polish

Of all the tricks which have been used to identify and aid the merchandising of nail polish, the one we like best is the one Marion Lambert uses. What they have done is match the color of the plastic cap with the color of the polish contained in the bottle. On the cap, forsooth, you actually see how the polish will look when spread on the nails. That seems fairly simple, yet, so far as we know, nobody has done it before.

Social Note

At one of the recent debutante parties in New York the guests attended dressed in gowns made of transparent cellulose. Credit for the debutante cellulose party was given to Mrs. T. J. Lewis, better known as Elizabeth Arden.

Books - OF IMPORTANCE TO DRUG AND COSMETIC MANUFACTURERS

MODERN COSMETICS, Chilson

400 pages of practical, usable information for the manufacturer of cosmetics. Over 500 formulas and procedure of manufacture for everything in the cosmetic line.

Price $6.00

RATIONAL PHARMACEUTICAL TREATMENT OF COMMON SKIN DISEASES
Herman Goodman, B.S., M.D.

In this volume is given in full detail the anatomy of skin, hair and nails. Any of the formulas given can be adapted by cosmetic manufacturers as a marketable corrective preparation.

First Trade Edition, $5.00

THE SCIENTIFIC AMERICAN CYCLOPEDIA OF FORMULAS, Hopkins

Compilation of about 15,000 selected recipes and processes.

1077 Pages, price $5.50 domestic, $5.85 foreign

CYCLOPEDIA OF PERFUMERY, Parry

A handbook on the raw materials used by the Perfumer, their origin, properties, character and analysis.

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All modern methods relating to the art of beauty with 100 original prescriptions and recipes.

Half Leather, 450 pages, $10.00

PRACTICAL PHARMACEUTICAL CHEMISTRY, Cooper and Appleyard

A systematic practical course in pharmaceutical chemistry for study or review.

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2,000 pages covering every phase of modern pharmaceutical requirements, service and activities.

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Sollmann

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PSYLLIUM SEED, THE LATEST LAXATIVE, Montague

Price $2.00

AN INTRODUCTION TO DERMATOLOGY
Sutton and Sutton

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1792 Pages, $15.00

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40,000 medical words pronounced and defined.

Flexible Covers, $2.00

NATIONAL FORMULARY V

Prepared by Authority of the American Pharmaceutical Association.

546 Pages, Buckram $3.50

COSMETICS, T. Koller

A handbook of the manufacture, employment and testing of all cosmetic materials and cosmetic specialties.

269 Pages $3.50

THE PREPARATION OF PERFUMES AND COSMETICS, J. P. Durvelle

Translated from the Fourth French Edition by Ernest J. Parry.

427 Pages, Cloth $8.00

A SYNOPSIS OF THE U. S. PHARMACOPOEIA AND NATIONAL FORMULARY, H. J. Fuller

The purpose of this book is to satisfy a long-felt need for a treatise of the Official Preparations in a concise form for the study of the Latin Titles, English Titles, Synonyms, Composition, Method of Preparation, Strength and Dose, arranged as to class of preparation.

247 Pages, Cloth $2.00

THERAPEUTICS, MATERIA MEDICA AND PHARMACY, R. J. E. Scott

15th Edition Revised. 410 Preparations. 997 Pages. Each Section Thumb Indexed.

Cloth $8.50

The Drug and Cosmetic Industry

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Please remit with order **For other titles, consult our Book Dept.**

Industry's Books

Our Vanishing Hair, by Charles Nessler, 140 pages, Alwyn-Schmidt Publishing Co., New York, $2.00 net.

An interesting discussion of the factors which affect baldness together with a complete dissertation on human hair production. Mr. Nessler is already well known for his work in the hair field and his book will interest all manufacturers of hair preparations as well as the general lay public. He makes the prophecy that a few generations from now the white race will be comparatively bald if present hair treatment is not radically modified. He also asserts that premature baldness can be completely eradicated if proper educational means are provided.

Mr. Nessler has the happy faculty of making his theories and their exposition very interesting. He discusses all of the conventional theories surrounding hair growth, the hair production of modern man, considerations of diet and health, hair migration, hair growth, hair loss, the child's hair, scalp refuse, dandruff, psychological aspects of hair, hair and mentality, hair biology, and a suggested questionnaire for collecting data on hair growth.

Although one may be permitted some slight amusement when Mr. Nessler, carried away by his enthusiasm, attempts to attribute many of the world's ills to hair incompatibilities, yet it must be admitted that once more he has made a valuable contribution to our knowledge of the hair.

Alchemy, Child of Greek Philosophy, by Arthur John Hopkins, 262 pages, Columbia University Press, New York, $3.50 net.

An interesting narrative of the beginnings of chemistry together with an interpretation of the activities of the alchemists in relation to the chemistry of today. The author points out that there is a distinct parallelism between the ancient methods and those prevailing today and it is this theory which is woven throughout the strictly historical material.

Among the chapter headings are alchemistic history, influences, literature, methods of transmutation, the Mohammedan revival, the twelfth century transition, the thirteenth century encyclopedists, Islamic alchemy, pseudo alchemy, the Phlogiston theory, last days of alchemy.

This is an interestingly written book with excellent illustrations and will appeal to all who are interested in chemistry.

Internal Medicine, edited by John H. Musser, 1296 pages, Lea & Febiger, Philadelphia, $10.00 net.

The second edition of this well-known work includes such material as diseases of the lymphatic vessels, tuberculosis of the kidneys and urinary tract, and bacillary dysentery. In addition it covers all of the infectious diseases, systemic diseases, diseases of nutrition, allergy, metabolism, physical and chemical agents, and diseases of the nervous system.

In this new edition the work offers modern experimental and clinical observations concisely presented by authorities preeminent in their fields, each of whom writes from the viewpoint of his experience, presenting his specialized knowledge in such a way as to make the work an authoritative source of information. The contribution of each author is sufficiently extensive to have required his best thought and effort, and his qualifications in the field that he covers are so clearly established that his contribution may be accepted with perfect confidence. The subject matter has been restricted to the practical, the material is well organized and the information covers the latest knowledge.

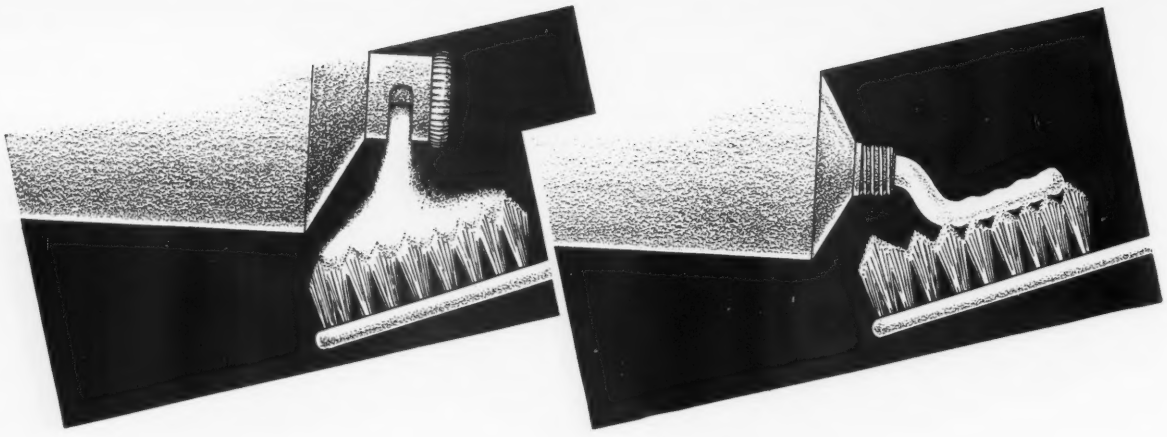
Tablet Making

(Continued from page 36)

be experienced in this connection. The difficulties to be wary of are those which cause capping, such as an excess of fines or scratched punches and worn dies. Both punches and dies must be cared for and guarded against damage of the slightest character. It frequently happens that in spite of proper lubricants and good punches and dies, certain chemicals will stick to the punches anyway. In some cases this may be overcome, as in the case of aspirin tablets, by "slugging" the powder without granulation. The proper granulation is then secured by grinding the slugs. These are simply oversize tablets or wafers. Inasmuch as they will be reground again it does not make any difference whether they are uniform in size or not.

Coating is a ticklish operation and most manufacturers avoid it whenever they can because it increases the cost of making the tablet considerably. Coatings are employed when the medicaments contained in the tablet are very bitter or otherwise objectionable to take, or when they become sticky in contact with moisture and as a consequence adhere to the throat. They are likewise employed when the tablet center contains materials that are likely to discolor badly and they are used also as a means of keeping the tablet from breaking up too quickly. In making tablets that contain incompatible substances the coating is sometimes employed as a guard against reaction by putting one of the incompatible substances into the coating and the others into the tablet itself.

Coating is in reality a trade which is acquired by much experience. The centers are loaded into a revolving pan and a measured amount of syrup is added. When the centers are sufficiently dampened. Chalk is added by degrees until a coating of required thickness is built up. This is topped off by more syrup containing chocolate as a coloring agent. During the process a uniform stream of air is blown on the tablets. Finally the coated tablets are transferred to a revolving polishing pan which consists of a pair of metal head rings with waxed canvas walls. The tumbling of the tablets against the waxed canvas polishes them. The wax employed for the purpose is usually a mixture of carnauba and beeswax.



Be Fair To Your Product When Selecting Your Soap

NO one soap can meet every need. Manufacturers of tooth powders and tooth pastes require certain definite characteristics in their soap according to their formulae and according to the requirements of their product.

As producers of the widest range of Neutral Powdered Soaps, we can duplicate exactly or furnish from standard production the exact soap characteristics you require.

POWCO BRAND Neutral Powdered Soaps are laboratory controlled for exact uniformity of chemical and physical characteristics.

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NEWS

Companies

Fritzsche Discontinues Schimmel

Fritzsche Brothers, Inc., New York has made the following announcement:

"The agency relation established after the World War between Schimmel and Co., A. G., Miltitz, Germany and Fritzsche Brothers, Inc., has now been terminated. The decision was arrived at in a very friendly spirit and in the belief that it accorded with the best interests of both principals. To those familiar with the growth and development of our firm this announcement will meet with but little surprise.

"To our long standing policy of handling only our own products the agency for Schimmel & Company's specialties has formed the sole exception. Our increasing development during recent years has therefore, made this step logical. It brings with it even larger opportunities for serving the interests of our friends and customers with the same high degree of efficiency which has distinguished our dealings for over sixty years."

Schimmel & Co., Inc. Formed

Schimmel & Co., Inc., 601 W. 26th st., New York, has been formed to represent Schimmel & Co., A.G., of Miltitz-Bei-Leipzig, Germany, in this country and in Canada. The new company, which is a manufacturer and dealer in essential oils, perfume raw materials and flavors, will maintain its office and laboratories at the above address.

H. Fritzsche, president of Schimmel & Co., Inc., is also president of Schimmel & Co., A. G. Gert Keller, who has been foreign sales representative for Schimmel & Co., A. G., since 1928, is secretary and general manager of the American company, and Carl G. Meyer is assistant manager.

The new company will maintain a complete laboratory and manufacturing plant and will also continue to publish the well-known Schimmel "Report on Essential Oils," which will be made available to customers and subscribers. A new report on "Perfumes, Cosmetics and Soap Making" will also be published regularly by the company.

Bristol-Myers Cited

The Bristol-Myers Company, manufacturer of medicines and cosmetics, New York, is charged, in a complaint issued by the Federal Trade Commission, with maintaining a resale pricing system in violation of the act creating the commission.

Huisking Silver Jubilee

During the drama-filled days of the World War, 5 Platt Street, New York, was probably as famous an address as 5 Downing Street, London. The latter was the center of the widespread activities of the British Empire, but 5 Platt Street was the heart of an even wider empire, the far-flung activities of commerce in drug and chemical materials. Through its doors passed a constant stream of frantic requests for chemicals, essential oils, botanicals, and other raw materials, from harassed buyers throughout the country. When all other sources failed, when even manufacturers confessed complete failure to supply goods at any price, the magic portals of 5 Platt Street would open to the despairing buyer and the goods he needed so desperately were rushed to him at the latest market price. In those days, 5 Platt Street was an address to conjure with, and the name of Huisking became famous for service and dependability in a crisis.

CHARLES L. HUISKING

PETER A. DIRR

JOSEPH A. HUISKING

WILLIAM J. DAWSON

Now, in a new, large, modern building at 155 Varick Street, Charles L. Huisking & Company is quietly celebrating its twenty-fifth anniversary, and Mr. Charles L. Huisking, its president and founder, is pleasantly reminiscent as he reviews the company's early days and illustrates how its character has changed with the changing times.

On January 1, 1910, having left the employ of Thomas M. Curtius, Mr. Huisking opened his own business at 3 Burling Slip, New York. His brother George was with him from the start and within the year Joseph A. Huisking, present secretary of the company, and Peter A. Dirr, its vice-president, had also become associated with him. William J. Dawson, treasurer, entered the company in 1915.

In 1913, Mr. Huisking bought the building at 5 Platt Street, from the estate of his former employer, Thomas Curtius, and moved his own business into the same building in which he was formerly an employee. Later, the building on the rear, at 110 John Street, was added to make room for the expanding business.

One of the interesting things done by the company during the War days of which we have been speaking, was the circulation of a one-page weekly sheet called "Weekly Drug Market." This was sent to all customers and contained comments on the market status of many important items. In addition, every second week another sheet accompanied this, the second sheet giving prices on a much longer list of materials.

Following this feverish activity and the return of conditions to a more normal state, the Huisking Company changed the character of its activity to meet changing conditions. From being mainly a broker

IN THE LAST ANALYSIS, THE SALES OF YOUR PRODUCT HINGE ON THE QUALITY OF ITS

BASIC INGREDIENTS

Almond Meal
Balsam Tolu
Benzoin Gum
Chalk (precipitated)
Chinese Shavings
Cuttle Fish Bone
FACTOLAC
Gum Arabic
Gum Tragacanth
HENNA
Henasoap Shampoo
Indian Gum (Karaya)
Talcum
Irish Moss
Lavender Flowers
Olibanum
Orris Root
Powdered White Soap

HOPKINS' NEUTRAL WHITE SOAP

Powdered, granulated Contains NO soap bark, free alkali, free acid or heavy metals. Totally free of rosin, sugar and foreign matter.

QUINCE SEED

Choice qualities rich in mucilaginous content.

In your preparation, the chain of its ingredients is only as strong as its weakest link. Neither clever merchandising nor effective advertising can replace the product's job of "delivering the goods." For more than 40 years, America's outstanding toiletry successes have relied on Hopkins' Basic Ingredients for the tested, full-strength, true-to-name quality which has helped elevate them to their present position of leadership.

FREE ON REQUEST

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Aromatic Chemical Co. Inc.

667 WASHINGTON STREET NEW YORK, N. Y.

Avoid Alkalies by Using—

TEGIN for vanishing creams and greaseless ointments.

PROTEGIN X for tissue and cold creams. Samples and suggested formulae are available for the asking.

As Preservatives, Use—

NIPAGIN M and NIPASOL M. Neutral, odorless and non-irritating.

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in any products which require an antiseptic or preservative. Samples and complete particulars will be sent upon request.

Th. Goldschmidt Corp.

70 Pine Street New York

the company became primarily a merchant in addition to its importing and exporting activities.

During 1931 the firm moved from the Platt Street address to 155 Varick Street, at the corner of Van Dam. On January 1, 1934, the company was forced to seek additional space and then took over the adjoining building at 149 Varick Street.

As the company has always been a leading importer of cod liver oil, acting as agent for a high quality Norwegian shipper, in 1927 a direct interest was obtained in the Norwegian cod liver oil firm of Peder Devold.

Likewise the company has always been one of the main suppliers of santonin in

GEORGE P. HUISKING

the country, and now owns the Santonin Co. of America, the sole source of American made santonin.

The company is directly interested in the firm of Wheeler and Huisking, Ltd., of London, which firm is a combination of the firms of Henry Wheeler & Sons, and Charles L. Huisking, Ltd. In fact, today the Huisking Company acts as purchasing agents and selling agents for various companies in practically every country in the world.

Mr. Charles L. Huisking, in addition to his interest in the firm which bears his name, is president of the Conti Products Corp., owner of the American rights to the production and sale of all products bearing the Conti name. Offices of the Conti firm are located at the Varick Street address of the Huisking Company.

Last summer the second generation of the Huisking family entered the business when William W. Huisking, second son of Charles L. Huisking, became permanently associated with Charles L. Huisking & Company. Last fall, Charles L. Huisking, Jr., Mr. Huisking's eldest son, became associated with Conti Products Corp.

Huisking Represents Shipkoff

Charles L. Huisking & Co., Inc., New York, has been appointed sole United States agents for Theodore K. Shipkoff & Co., Ltd., Sofia, Bulgaria, distillers of otto of rose.

Lilly Establishes Award

Eli Lilly & Co., Indianapolis, has established a new annual award of $1,000 and a bronze medal for scientific achievement in early life. It is to go to a man or a woman under 31 years old who is engaged in outstanding research in biological chemistry in a college or university in the United States.

The first presentation of the award will be made at the Spring meeting of the American Chemical Society in New York next April.

The research is not to be judged in comparison with work of more mature and experienced chemists. Special consideration will be given to the independence of thought and originality displayed. For the purpose of the award, biological chemistry is not to include immunology, clinical investigations, pharmacology or experimental therapeutics.

Magnus Sales Meeting

Magnus, Mabee & Reynard, Inc., New York, celebrated the 40th anniversary of the founding of the business during a three day sales meeting which was held at the company's offices January 3, 4 and 5. Executives of the company conferred with the sales force during the meeting, educating the sales force to the new and improved specialties which the firm is offering.

Halitosine Builds

Halitosine Co., St. Louis, is constructing a new plant and laboratory in that city close to Kingshighway and Tholozan. It will be equipped with a filtered humidified air-conditioning system.

Flame & Candle Combined

The Poenix Flame, house publication of Phoenix Metal Cap Co., Chicago, has been consolidated with The Giles Candle, house publication of a subsidiary container company, the Giles Can Co.

The Phoenix Flame was recently selected as one of the leaders in the contest conducted by The Direct Mail Advertising Association.

Revson Appoints

R. F. Revson & Co., New York, has announced the appointment of two foreign representatives. Joseph Meyer, Apartado 2775, Mexico, D. F., has been appointed agent for Mexico, and Alfa Bendito, Victoria 434, Buenos Aires, has been appointed agent for the Argentine.

Abbott's New Packages

Announcement is made by Abbott Laboratories, North Chicago, Ill. of two new packages of Haliver Oil Plain Capsules. This product is now available in boxes of 25 and 100 capsules in addition to the box of 50.

Diamond Glass Officials

Diamond Glass Co., Royersford, Pa., announces that officers of the company are now as follows: president and treasurer, Frank B. Foster, jr., vice-president and general manager, H. R. Macturk; vice-president and secretary, John H. Foster.

Cosmetic Peril

Rose Laird, New York, gave a tea at the Hotel Pierre, New York, on December 14 at which Charles Barban, consulting chemist, spoke on the "Cosmetic Peril," decrying the exaggerations which have attempted to place the entire cosmetic industry in a false light before the consuming

ROSE LAIRD

public. The tea was a highly successful event attended by all of the outstanding beauty editors of women's magazines and the daily newspapers, as well as by many other freinds of Miss Lairds in the industry.

Drug Products Patent

The Drug Products Co., pharmaceutical manufacturer of Long Island City, N. Y., has notified the drug trade that a patent (U. S. No. 1980236), covering "an improvement in process for making aqueous soluble colloidal sulphur isotonic and injectable solution" will issue to it as assignee November 13. This patent covers the company's preparation marketed under the name, "Sulisocol," for which a trademark was registered October 16 under the number 318237.

The company markets "Sulisocol" in ampuls ("Hyposols") of two sizes—1 c.c. containing 10 milligrams and 2 c.c. containing 20 milligrams of colloidal sulphur. It informs the trade that it has no intention to harass or annoy anyone with unnecessary litigation, and asks that care be taken to guard against innocent infringements of its rights.

Ayer Appoints Reid

Harriet Hubbard Ayer, Ltd., Canada, has appointed C. Douglas Reid in charge of sales for Eastern Canada.

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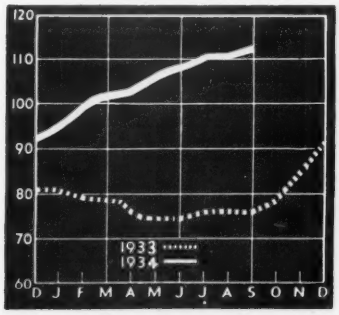
ALCOHOL NEWS

JANUARY ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1935

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-Sept.		122,247	100,309
	September		15,636	13,968
	August		13,823	12,482
SALES				
1000 proof gals.	Jan.-Sept.		109,947	80,454
	September		17,821	13,268
	August		13,156	10,232

ALCOHOL PRODUCTION GAIN IN '34 REFLECTS BUSINESS RECOVERY

The marked increase in the production of industrial ethyl alcohol, accompanied at the same time by reduction of inventories on hand at producers' plants, that have been reported for the first nine months of 1934 is a good index of general business recovery for both the staple and luxury classes. Because industrial alcohol is a basic raw material, either directly or indirectly for practically all modern manufacturing processes, the sharp gain in production would naturally tend to reflect improvement in a long list of important industries.

While the actual breakdown of industrial alcohol withdrawals by consuming industries has not yet been released, it is expected that a large majority of consumers will show substantial increases.

ANTI-FREEZE ALCOHOL RULING

When anti-freeze alcohol is sold under a trade or brand name, certain approved substances must be added so that it will not constitute a sale of an approved anti-freeze formula under a trade name according to a recent ruling of the Commissioner of Internal Revenue.

The sale of an approved alcoholic anti-freeze solution under a proprietary name, free of completely denatured alcohol restrictions must be limited to drums and cans.

Aliphatic aldehydes, are well known as perfume ingredients. In perfumery, Aldehyde C_{15}, the lactone of oxynonylic acid, is limited to a few fancy bouquets and odors of the tuberose and gardenia type, but when mixed with a small amount of color, alcohol and water, it produces a delicate cocoanut flavoring compound.

U S I

The incorporation of organic solvents in soaps is the subject of a recent foreign patent. The solvents are emulsified in water with the aid of mineral-oil sulphonic acids and the emulsion mixed with soap; or a solvent containing the sulphonic acids in solution may be mixed with the soap according to the specifications.

CODE CHANGES FOR ALCOHOL AND CONSUMING INDUSTRIES

All Alcohol Makers Support Code

All members of the industrial alcohol industry whose principal line of business is governed by some code other than the Industrial Alcohol Code are now obligated to contribute to the support of the Industrial Alcohol Code Authority under a recent ruling of the National Industrial Recovery Board.

This order terminates for the industrial alcohol industry the exemption conferred by Administrative Order X-36 which prohibited multiple code assessments.

Cosmetic Code Amended

It is reported that members of the perfume, cosmetic and other toilet preparations industries, the bulk of whose products were produced under some other code, are now required to contribute to the support of the code authority for the cosmetic industry unless sales of products manufactured under the cosmetic code during 1933 amounted to $5000. or less and represented 5% or less of the total net sales of such members.

This order is issued as an amendment to an earlier order terminating the exemption of such manufacturers from paying fees to this code authority.

Drug Code Authority Approved

The National Recovery Administration has approved the following as members of the Code Authority for the pharmaceutical and biological manufacturing industries:

Carl N. Angst, Pitman-Moore Company; Horace W. Bigelow, Parke, Davis & Co.; Clifford V. Haver, Haver-Glover Laboratories; John G. Searle, G. D. Searle & Co.; and A. Homer Smith, Sharp & Dohme, Inc.

METHOD OF GAUGING CONTENTS OF INDUSTRIAL ALCOHOL DRUMS

Provides Practical Inventory Check

The following method for determining the contents of a standard 54-gallon industrial alcohol drum provides an easy and practical way of calculating the number of gallons in the container at all times and requires no other apparatus than an ordinary yard-stick.

In the table shown below, figures are given for measuring the contents when the drum is in either the vertical or horizontal position. After the bung is removed from the top of the drum, the yard-stick, graduated in inches, is inserted to the bottom of the drum, withdrawn and the number of wet inches noted. The temperature is noted at the time of reading (if the temperature of the contents of the drum should differ appreciably from the room temperature, actual temperature of the contents should be noted). Then refer to the temperature column in the table below, comparing the temperature reading with the number of wet inches. Where the two columns intersect the number of gallons in the container is recorded. A simple mathematical calculation will reveal corrections for fractions of an inch or intermediate temperature reading.

For example, a drum in the vertical position shows a stick reading of 18½ wet inches and a temperature reading of 55° F. By referring to the 18 wet inch and the 50° F. columns, it will be seen that the drum would contain 31.5 gallons. Correcting for the intermediate temperature (55° F.), at 60° F. the drum would contain 31.3 gallons, so the intermediate temperature reading would approximate half the difference, or 31.4 gallons. Similarly, correcting for the fraction of an inch, the difference between 18 and 19 wet inches is 1.7 gallons at

(Continued on next page)

TABLE FOR GAUGING CONTENTS OF INDUSTRIAL ALCOHOL DRUMS

DRUM VERTICAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
1	1.7	1.7	1.7	1.7	1.7
2	3.4	3.4	3.4	3.5	3.5
3	5.1	5.2	5.2	5.2	5.3
4	6.9	7.0	7.0	7.1	7.1
5	8.7	8.7	8.8	8.8	8.9
6	10.4	10.4	10.5	10.5	10.6
7	12.1	12.1	12.2	12.3	12.4
8	13.8	13.9	14.0	14.0	14.1
9	15.5	15.6	15.7	15.8	15.9
10	17.2	17.3	17.4	17.5	17.6
11	19.0	19.1	19.2	19.4	19.5
12	20.7	20.8	20.9	21.1	21.2
13	22.4	22.5	22.7	22.8	23.0
14	24.2	24.3	24.4	24.6	24.7
15	26.0	26.1	26.3	26.4	26.5
16	27.6	27.7	27.9	28.1	28.3
17	29.4	29.6	29.7	29.9	30.1
18	31.1	31.3	31.5	31.7	31.8
19	32.8	33.0	33.2	33.4	33.6
20	34.5	34.7	34.9	35.1	35.3
21	36.2	36.4	36.7	36.9	37.1
22	37.3	38.2	38.4	38.6	38.8
23	39.6	39.9	40.1	40.4	40.6
24	41.5	41.7	41.9	42.2	42.4
25	43.2	43.4	43.7	43.9	44.1
26	44.9	45.1	45.4	45.7	45.9
27	46.6	46.9	47.1	47.4	47.7

DRUM VERTICAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
28	48.3	48.6	48.9	49.2	49.4
29	50.1	50.3	50.5	50.9	51.2
30	51.7	52.0	52.3	52.6	52.9
31	53.5	53.8			

DRUM HORIZONTAL

Wet Inches	70°F	60°F	50°F	40°F	30°F
1	0.8	0.8	0.8	0.8	0.8
2	2.4	2.4	2.4	2.5	2.5
3	4.4	4.5	4.5	4.5	4.5
4	6.8	6.8	6.9	7.0	7.0
5	9.5	9.5	9.5	9.6	9.7
6	12.3	12.3	12.4	12.5	12.6
7	15.3	15.4	15.5	15.6	15.7
8	18.4	18.5	18.6	18.7	18.9
9	21.6	21.8	21.9	22.0	22.2
10	25.0	25.1	25.3	25.4	25.6
11	28.3	28.4	28.6	28.8	29.0
12	31.6	31.8	32.0	32.2	32.4
13	34.9	35.1	35.3	35.5	35.7
14	38.1	38.4	38.6	38.8	39.0
15	41.2	41.5	41.7	42.0	42.2
16	44.3	44.5	44.9	45.1	45.3
17	47.1	47.4	47.6	47.9	48.2
18	49.7	50.0	50.3	50.6	50.9
19	52.1	52.5	52.7	53.1	53.3

Prepared Monthly by the U. S. Industrial Alcohol Co.

ADVERTISEMENT—*This entire page is a paid advertisement.*

JANUARY ★ **ALCOHOL NEWS** ★ 1935

USES OF PECTIN IN COSMETICS

The use of pectins in a number of important cosmetic products seems to be increasing and further extension of their use is in prospect.

In aqueous solutions, pectins are said to possess all the intrinsic characteristics of colloids and have a very beneficial action on the skin. They appear to have an affinity for the cellular structure of the skin and human hair. These colloidal solutions of pectins are readily absorbed by both the skin and hair and are not accompanied by any chemical reaction which accompanies the use of alkaline substances. Another advantage is that the pectin substance has the power of neutralizing any excess alkali that may exist.

It has been adopted for use in latherless shaving creams, and when mixed with alcohol or water, can be used with advantage in thickening dentifrices, etc.

INSULIN BY NEW PROCESS

A new process for the extraction of insulin has been patented and assigned to the free use of the public by its inventors.

Insulin is extracted from the roots of certain plants with hot water. The liquid is then treated with a suitable basic oxide, hydroxide or carbonate. Excess of the base is removed together with precipitated impurities by filtering and the liquid is then treated with carbon dioxide to neutralize further and purify it. The precipitate is removed and the liquid concentrated in a vacuum still. It is then heated to 90—95° C, and on cooling to room temperature, the insulin separates out. Final purification follows.

GAUGING ALCOHOL DRUMS

(Continued from preceding page)

50° F. One-half of the difference, or .85 gallons, is therefore added to the figure of 31.4 gallons to compensate for the extra ½ inch on the stick reading, giving a total of 32.25 gallons, a close estimation of the contents of the drum.

The tables were prepared by the U. S. Industrial Alcohol Co. for use in determining the contents of a standard 54-gallon drum of SUPER PYRO Anti-freeze, but work equally well for other industrial alcohols, both completely denatured and specially denatured. Additional copies of the table are available.

Sodium sesquisilicate, a new cleaning agent, is suggested as suitable for cleaning industrial glassware of all kinds where hand contact is not involved. The product is claimed to have wetting power against glass equal to that of metasicilate. It is also suggested as suitable for heavy duty cleaning of oil-soaked floors, etc.

UNUSUAL ALCOHOL DERIVED CHEMICALS

Collodion

Collodion is a "specialty" product: not an alcohol-derived chemical. Collodions are essentially thin-bodied solutions of nitrocellulose in a mixture of ether and ethyl alcohol, with or without the addition of other ingredients as are listed below. However, because of the highly specialized uses of these products, they are included in this series.

Particular attention is called to the extreme purity of the raw materials and the uniformity of the finished collodions, which have regularly been manufactured by the U. S. Industrial Chemical Co., Inc., for a number of years.

Collodion U. S. P.

Collodion U. S. P. is made by dissolving nitrocellulose in ether-alcohol mixture according to the standard U. S. P. formula:

Pyroxylin	40 gm.
Ether	750 cc.
Alcohol	250 cc.
To make about	1000 cc.

Pharmaceutical firms find considerable use for this product in the manufacture of many medical and proprietary products. By reason of its use in surgical work where extreme purity is required, great care is taken in the selection of the constituents and in the process of manufacture.

Collodion Flexible U. S. P.

Collodion Flexible is Collodion U. S. P. plasticized with camphor and castor oil according to the following U. S. P. formula:

Camphor	20 gm.
Castor oil	30 gm.
Collodion (U.S.P.)	950 gm.
	1000 gm.

Its uses are substantially the same as for Collodion U. S. P. Some manufacturers, however, prefer the Collodion Flexible as a base for certain proprietary and medical products.

Photo Collodions

Photo Collodions are specially prepared for the manufacture of photographic emulsions and are usually compounded on buyers' specifications. However many users have now standardized on the so-called 2½ oz. and ¼ oz. solutions. They are compounded of pyroxylin in a mixture of equal parts of ethyl alcohol and ether.

Because of the extreme delicacy of emulsions and photo-engraving technique, extreme care is taken by U. S. I. to insure absolute purity.

TECHNICAL DEVELOPMENTS

Soap cakes with molded plastic tablets in the center are being introduced in Europe. The tablets carry the manufacturer's trade mark and are intended to remind the user that when the cake is nearly used up, he should again purchase the same brand.

U S I

A water-jacketed mold for cooling lipsticks and suppositories has been placed on the market. It is equipped with one tube for direct connection with a water-tap and another for draining. Thus, quick chilling may be secured without the necessity of moving or handling the mold.

U S I

An electrical stethoscope, designed to transmit most efficiently at low audio frequencies (rumbles, thumps, etc.), has a self-contained microphone and amplifier. Aside from medical diagnosis, it has applications in vibration studies and acoustic tests.

U S I

In the preparation of stearate creams, triethanolamine has been used experimentally to replace potassium carbonate with the reported result that when the amine is used, the tendency of the cream mass to foam or overflow during manufacture is eliminated and there is no formation of lumps.

U S I

A new insulating material is reported as both opaque against X-Ray current and suitable for high tension current use. It can be molded into any desired shape and is adaptable for tube shields or for enclosing an entire X-Ray room.

U S I

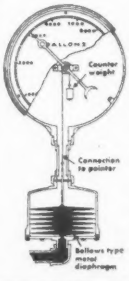
A "rheumatism oil," highly prized in China as a cure for rheumatism, is extracted from rattlesnakes. A recent shipment of this unusual raw material, consisting of some 200 rattlesnakes pickled in alcohol, was sent to China to be used for this purpose.

U S I

Solutions of vitamin D in organic solvents such as alcohol and ether, in vacuo, may be stabilized by the addition of 10-25% by volume of vegetable or animal oils, sesame oil, cod-liver oil, lard, etc., according to a process recently patented. This is said to be of particular value in the continuous manufacture of vitamin D by irradiation.

U S I

A liquid gauge, operating on converse principle of barometer bellows, is now on the market. The liquid in a tank is connected by a tube to the metal diaphragm located at the bottom of the gauge which in turn is connected mechanically to the indicator. As the liquid in the tank is raised, the pressure expands the diaphragm which change is recorded by the indicator. Measurements may be in any desired terms, i.e., gallons, pounds, barrels, etc. The gauge is calibrated at a definite predetermined temperature, to allow for corrections due to volume changes caused by changes in temperature.



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SOLOX-*The General Solvent* • **PYRO**-*The Standard Anti-Freeze* • **SUPER PYRO**-*The Rustproof Anti-Freeze*

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U. S. I.—U. S. P.-*Ethyl* • **WEBB'S**-*Ethyl* • **SUNSHINE**-*Ethyl*

Executive Offices: 60 East 42nd Street, New York, N. Y. Branches in all Principal Cities.

A. D. A. Rejects

ZIRATOL & IPANA

Ziratol and Ipana Tooth Paste, manufactured by Bristol-Myers Co., because a statement of composition for Ziratol does not appear on the label; it is advertised to the public and to the profession with unwarranted therapeutic claims; the name does not express the composition of a mixture of readily available materials, and Ipana is a dentifrice which is advertised to the public and to the profession with therapeutic claims in conflict with the provisions of the Council for dentifrices and it contains ziratol, another unacceptable proprietary of secret composition.

ASPERGUM

Dillard's Aspergum, manufactured by Health Products Corp., Newark, N. J., because it represents an unessential modification of an official drug, and because it is marketed to the public for conditions which require proper professional care and not self-medication, directly to and through the dental profession.

A. M. A. Rejects

ACIDOPHILUS

Acidophilus Bacillus Liquid-Mulford and Mulford Acidophilus Bacillus Blocks, manufactured by Sharp & Dohme, Inc., because they are inferior to the Council's standards and because Sharp & Dohme, Inc., has refused to comply with the Council's requirements relating to the improvement of the product, the labeling of the containers and the revision of the circulars, cartons, and labels.

Trade Literature

INDUSTRIAL CHEMICAL CO.

Industrial Chemical Sales Co., Inc., New York, has published a very unusual booklet on water which embodies an excellent collection of photographs showing how the various peoples of the world take care of their water supply.

FLEET'S COCKTAIL BOOK

C. B. Fleet Co., Lynchburg, Va., "Phospho-Soda," is distributing copies of the booklet, "Here's How," containing hundreds of formulas on mixing drinks.

EMULSION PRACTICES

Beacon Co., Malden, Mass., has published a new booklet of interest to cosmetic manufacturers, "Latest Emulsion Practices." It lists materials and formulas and copies are available upon request.

PARENTO CATALOG

Compagnie Parento, Inc. has issued a new catalog which is unusually complete and of real value to users of essential oils and perfume compounds. One of the outstanding features of the catalog is an original type code which is included together with a use code. All perfume compounds are keyed with the letters of both these codes, enabling a user to select a compound particularly suited to the purpose for which he desires it. As an example, Balsamol is listed as OHB, which means Oriental, Heavy Musk Type, and Base or Foundation Note under the Type code; and it is also listed SPT, which means Soaps and Shaving Creams, Face Powders, Compacts, etc., and Toilet Waters under the Use Code.

New Products

LECITHIN

Jungmann & Co., Inc., New York, is marketing a new form of lecithin known as lecithin hydrate which is completely soluble in water and oil.

LO ZAR

Rational Medicines, Inc., New York, is marketing a new laxative, "Lo Zar."

FEMININE POWDER

C. E. Jamieson Co., Detroit, is marketing a new Feminine Hygiene Powder.

WINTER LIPSTICK

Rose Laird, New York, is marketing a new lipstick for winter use which is said to have healing properties, contain no wax, and be absorption proof.

Removals

ZELMA BENDURE

Zelma Bendure, Ltd., cosmetics, has leased space at 12 East 23 st., New York.

CONSOLIDATED MFG. CO.

Consolidated Manufacturing Co., cosmetics, has leased space at 1700 Broadway, New York.

BAUER & BLACK

Bauer & Black, Chicago, has announced plans for building a branch plant in Mexico City.

ANCHOR IN NEW YORK

The New York sales offices of Anchor Cap & Closure Corp. and those of Capstan Glass Co. and Salem Glass Works has been consolidated in new and larger quarters at 192 Lexington ave., that city, under the management of David Corin and C. L. Lightfoot.

UNITED WHOLESALE IN ATLANTA

United Wholesale Druggists, Inc., Boston, has announced the opening of a branch office in Atlanta, Ga., with J. S. McMahon as president.

DAWN OF HOLLYWOOD

Dawn of Hollywood, Inc., Hollywood, announces its removal to new quarters at 6260 Selma st., that city. The company also manufactures the House of Seager line. Maynard Gunsaul is president and Jack B. Murphy, chief chemist.

We Move

THE DRUG AND COSMETIC INDUSTRY announces its removal to larger quarters on the fifteenth floor at 101 West 31 st., New York, in order that it may have additional facilities for building up a library and a complete system of reference files of material to be used in the future in the year-book of this industry—"The Drug and Cosmetic Catalog."

This annual publication will make its appearance early in the Spring. It will be completely revised, with the new edition initiating a system of recording all important technical and market data which have developed during the preceding year, thus making it a practical handbook for manufacturers of medicines, cosmetics and allied products.

Arner in New York

The Arner Co., Inc., Buffalo, announces the opening of a New York office at 551 Fifth ave., with John Postance in charge.

Proprietaries, Inc. Accounts

Proprietaries, Inc., New York is now sole sales agent for "DANGO" scalp remedy and "Lucille Savoy" cosmetics.

Compagnie Parento Changes

Addington Doolittle, president of Compagnie Parento, Inc., Croton-on-Hudson, New York and Compagnie Parento, Limited, Toronto, Canada, which have been handling the line of Pierre Dhumez & Co. in the United States and Canada, advises that they will continue to do so until February 15, 1935. Mr. Doolittle sailed on the Manhattan, January 3, on a business trip which will take him to France, England, Italy, Bulgaria and Africa. He informs us that he will have an important announcement to make in February regarding additional connections abroad. Mr. Doolittle further advises us of the acquisition of Irving Bennett & Co. effective immediately. Compagnie Parento, Inc. and Compagnie Parento, Ltd. will distribute the products heretofore supplied by Irving Bennett & Co.

Mr. Bennett will be identified with Compagnie Parento, Inc. in an assistant executive capacity, making his headquarters at the company's New York office at 507 Fifth Avenue. He has been active in the essential oil industry for many years in the United States, Canada, and Europe. Among other associations he was connected with Antoine Chiris Co. for twelve years; part of this time was spent in the Canadian Company, and on his return to New York he assumed charge of sales in the United States.

ORBIS PRODUCTS CORPORATION

SPECIALTIES . . *from our Newark, N. J. Factory*

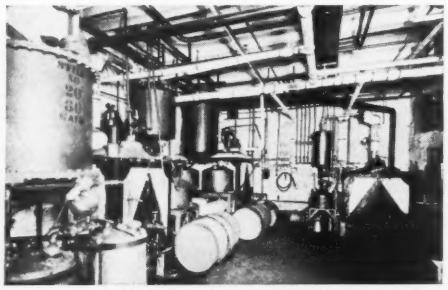
ANETHOL CARVACROL EUCALYPTOL
SAFROL OIL SASSAFRAS ARTIFICIAL
THYMOL CHLORTHYMOL

ESSENTIAL OILS

Aromatic Chemicals and Aromatics

We handle and stock a complete line of aromatic products. Our connections abroad and in this country and our own laboratory facilities enable us to supply you at once.

Essential Oils
Aromatic Chemicals
Perfume Compounds
Balsams
Oleoresins
Fruit Flavors



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Our modern, well equipped factory at Newark, N. J. includes a thoroughly up-to-date distilling plant, a thymol and refrigerating unit, fully equipped mills for grinding and powdering and an excellent, modern laboratory. Our factory is always open for inspection.

COSMETIC RAW MATERIALS

We are primary factors and importers in the basic raw materials used in cosmetics. Many of these are specialties which we bring in as direct representatives of leading foreign producers. These include:

Stearic Acid
Precipitated Chalk
English Kaolin
Spermaceti
Rice Starch
Beeswax
Zinc Oxide, etc.

WATER SOLUBLE GUMS

ARABIC TRAGACANTH KARAYA

Powdered and whole form

All pulverizing done in our own mills at Newark, New Jersey

Send for our complete price list of Aromatic Products, Chemicals and Raw Materials, Gums and Specialties.

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844 Rush St.	253 Bourse Bldg.	131 State Street	742 So. Hill St.

People

Couderchet Joins Naugatuck

Maurice G. Couderchet has become associated with Naugatuck Chemical, New York. He comes direct from Grasse, France, where he was connected with Bruno Court, in which firm he specialized in the sale of the colonial essential oils produced by Compagnie Africaine des Plantes a Parfum known throughout the world as C. A. P. P. He will be located at the New York office of Naugatuck whom he will assist in the development of American business of both Bruno Court and C. A. P. P.

Naugatuck Chemical now American selling agent of Bruno Court and C.A.P.P. has been one of the progressive chemical manufacturers for over 30 years. About two years ago it began to offer a line of aromatic chemicals produced at the Naugatuck, Conn. Its entrance into the aromatic field was the outcome of research in the use of available raw materials and eventually led to the decision to look for facilities so as to be able to offer a complete line to the American manufacturer. The agreements with Bruno Court, C.A.P.P., as well as the Laboratories of Louis Bornand were the result.

MAURICE G. COUDERCHET

Bruno Court was established in Grasse in 1812. It was one of the first in Grasse to extract the odor of flowers by the use of animal fats in the belief that these pomades or the liquids made from them add a real value to the perfumes and this particular business now forms an important part of its total manufacture.

The firm C. A. P. P. is a French company formed in 1930 for the development of aromatic plants in the various French colonies. Its head office is at Casablanca (Morocco) and it has other plants in Labe Nadel (French Guinea); Sala, (French Guinea); Seba Aioun (Morocco); Addis Abeba (Abyssinia) also in Kenya, and in Nossi Be.

At the present time, it is manufacturing a most interesting selection of new essential oils and extractions as well as some of the better known ones such as geranium, ylang, ylang, civet, etc., oil of sweet orange, etc.

The Laboratories of Louis Bornand brings to Naugatuck the association that will be helpful in the production of special aromatic chemicals as well as a knowledge of their use in special perfume producing products. This association will give Naugatuck greater facilities for assisting their customers and following the policy of Naugatuck to bring to America knowledge and information regardless of the country of origin. M. Appell, of the company, who will arrive in America the first of this year, will be located at Naugatuck, Conn.

Healy Heads Groville

Dwaine Kramer Healy has become president of Groville Sales Corp., New York. This announcement will be of interest not only to present buyers of Potter & Moore Mitcham Lavender products of London, Parfums Grenoville of Paris and of Margaret Blair Cosmetics but to those who knew Mr. Healy during his previous connections with Colgate-Palmolive-Peet Co. and with Richard Hudnut.

DWAINE K. HEALY

Amic Returns to France

Louis Amic of Etablissements Roure Bertrand Fils & Justin Dupont, Paris and Grasse, has returned to France with Mrs. Amic after about a month's visit to this country. During his visit he made his headquarters with the George Silver Import Co., New York, American representative of his house, and also visited both Canada and the Middle West before leaving for France.

Fourman on Flower Oils

Dr. Victor G. Fourman, Chief Chemist of Compagnie Parento, Croton-on-the-Hudson, New York, recently delivered a lecture on Flower Oils and Perfumes to the members of the group at the regular meeting of the Student Branch of the American Pharmaceutical Association, St. Johns University College of Pharmacy, Brooklyn, N. Y.

Koenig Heads Square Club

Drug and Chemical Square Club, New York, has elected the following officers for 1935: president, Harry D. Koenig, Martha Washington Cosmetics; 1st vice-president, Dr. Hugo H. Schaefer, College of Pharmacy; 2nd vice-president, Jack Feldman, Washington Square Pharmacy, New York; treasurer, Jos. G. Attwood, Martha Matilda Harper, Inc.; secretary, Fred G. Hammond, J. B. Williams Co.; governor, Jack Denton, New York; Harry Gerr, H. Gerr, Inc., New York; Harry Migatz, sales manager; Harry Silverstein, Aitchess Drug Sundry Co., New York.

Magnus Reelected

Percy C. Magnus, president of Magnus, Mabee & Reynard, New York city, has been re-elected president of the New York Board of Trade by the directors of that organization. This is the third term for Mr. Magnus.

P. C. MAGNUS

Webber Joins Houbigant

Pierre Harang, sales manager of Houbigant Sales Corp., New York, has announced the appointment by his company of Calvin R. Webber as special wholesale trade representative, with headquarters in New York.

"Cal" Webber is widely known throughout the drug trade for his merchandising activities. For seven years he was assistant to the president of the Packer Manufacturing Co., in charge of sales promotion.

Carl Weeks Elected

Carl Weeks, head of Armand Co., manufacturer of cosmetics, has been elected president of the Greater Des Moines Committee, Des Moines, Iowa.

Kerner Joins Pepsodent

W. R. Kerner, formerly a sales executive with the Colgate-Palmolive-Peet Co., has been appointed sales manager of the Pepsodent Co., Chicago.

Gives your cosmetics

GREATER OPACITY *and* DULL FINISH

THE most effective way to impart opacity and dull finish to your powders, paints and creams is to pigment with Titanox-A (Titanium Dioxide).

Titanox-A has the highest hiding power of any of the white pigments commercially obtainable.

Moreover it is chemically and physiologically inert. No matter how sensitive the skin it will not cause irritation.

In addition, Titanox-A retains its opacity in the presence of oils —an essential pigment quality when used in grease paints and other preparations coming in contact with the skin.

Our technical staff will be glad to assist you in adapting Titanox to your formulas. Phone or write the nearest office.

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Manufacturers of TITANOX-A (*Titanium Dioxide*)
TITANOX-B (*Titanium Barium Pigment*)
TITANOX-C (*Titanium Calcium Pigment*)
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Santalum Album

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Essential Oils
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For over 75 years the recognized source of supply

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Arabic Tragacanth Karaya

All powdered gums standardized by Laboratory Control

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Represented in Chicago by A. C. DRURY & Co., INC.

Adkins Joins Pompeiian

H. W. Adkins, formerly of the Druggists' Supply Corp. and more recently of the Gillette Company, has become general manager of the Pompeiian Co. with headquarters in Bloomfield, N. J. He is planning to leave soon on a coast to coast trip to make a consumer and trade survey of the cosmetic field.

Dr. Nelson Joins F. D. A.

Dr. Erwin E. Nelson, of the medical faculty of the University of Michigan, has been appointed principal pharmacologist in the food and drug administration, of the Department of Agriculture.

As highest ranking officer in the drug division, Dr. Nelson will, in fact, be chief of drug control, but he has not yet been given that title, and through a rearrangement of duties he may do more research and less executive work than was done by former chiefs.

Murray Breese Takes Control

Murray Breese announces that he has become the owner of all of the stock of

MURRAY BREESE

Breese-Waetjen, Inc., New York, and that the name of the company has been changed to Murray Breese Associates, Inc.

Ireland Joins Agency

Establishment of a New York office by Lake-Spiro-Cohn, Inc., Memphis, Tenn., advertising agency, effective Jan. 1, was announced last week in Memphis, concurrent with the appointment of Harry M. Ireland, until recently advertising manager of Health Products Corp., Newark, as manager of the new unit.

Perkin Medal to Curme

The Perkin Medal of the Society of Chemical Industry, a distinguished honor among chemists, was presented January 11 to Dr. George O. Curme, Jr. of the Carbide & Carbon Chemicals Corp. The occasion was a joint meeting of the Society of Chemical Industry, the American Chemical Society, the Electrochemical Society and the Societe de Chemie Industrielle, held at The Chemists' Club, New York.

The award of the Medal was made several months ago by a committee representing five national chemical societies. This medal is awarded annually for valuable work in applied chemistry and Dr. Curme was chosen for his work on the development of commercial processes for synthesis of aliphatic organic compounds such as alcohol, acetone and ethylene glycol.

Lund Reelected

Robert L. Lund, executive vice-president of the Lambert Pharmacal Co., St. Louis, Mo., has been reelected as chairman of the board of the National Association of Manufacturers; S. Bayard Colgate, president of Colgate-Palmolive-Peet Co., was elected a vice-president of the association.

Sayhun Joins Stearns

Dr. Melville Sayhun, well-known research worker in the field of insulin, the carbohydrates, growth factors, and the biochemistry of the epinephrin-like com-

DR. MELVILLE SAYHUN

pounds, has been appointed director of the division of biochemical research of Frederick Stearns & Co., Detroit.

Searles to Asia

Dr. C. H. Searle, president of G. D. Searle & Co., Chicago, with Mrs. Searle, left on the first of the year on a business trip to Honolulu, Japan, China and the Philippines. Recent developments in their Research Laboratories has warranted an expansion throughout the Orient.

Currens on Code Authority

Turner F. Currens, Norwich Pharmacal Co., Norwich, N. Y., has been elected a member of the Package Medicine Code Authority succeeding John A. Handy of the Larkin Co., Buffalo.

Charles Weeks—Armand Sec'y

Charles Weeks, eldest son of Carl Weeks, president of Armand, Inc., Des Moines has been elected secretary and treasurer of the company succeeding Jessie E. Moore, resigned.

Folsom Heads Foragers

Foragers of America has named the following officers for 1935: president, Harry D. Folsom; vice-president, W. W. Nielson; secretary and treasurer, O. C. Niedenstein; board of governors, A. J. Connelly, F. L. Graham, R. S. Ascularius, Martin F. Schultes, Bert Georgi, W. T. Killcullen, and J. B. Brennan.

Farrell Elected

Thomas R. Farrell, editor of THE DRUG AND COSMETIC INDUSTRY, was the only new member elected to the executive committee of the Drug & Chemical section of the New York Board of Trade. Other members of the committee were re-elected.

THOMAS R. FARRELL

A complete report of the elections will be found under "Associations."

Brill to Florida

Lou Brill of Stein-Brill is on his annual trip to Florida in quest of sail-fish, swordfish, cat-fish, etc. If the stories concerning his fishing prowess are true, about all he'll catch will probably be a piece of used machinery.

Lloyd Writes "Our Willie"

A new book titled "Our Willie," by Dr. John Uri Lloyd, of Cincinnati, has been published and is available from John G. Kidd & Son, Inc., of that city. "Our Willie" is a story of the Stringtown section of Boone County, Kentucky, and is a companion in size and text to "Stringtown on the Pike."

Berke to Serve United Chemical

M. Ralph Berke, pharmaceutical chemist, has been appointed consulting chemist to the United Chemical Co., Montreal.

FOR YOUR CREAMS--

SUPERFINE STEARIC ACID
Triple pressed and double pressed

WHITE OLEIC ACID

LANOLIN
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ISCO AQUAPHIL
Contains all the good features of wool fat in concentrated form

BEESWAX UNBLEACHED
Extra light yellow. Refined

PURE OZOKERITE WAX
White and yellow

PARAFFIN WAX

SPERMACETI WAX

JAPAN WAX

CARNAUBA WAX

CERESINE WAX
White, Yellow and Orange

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Associations

Lynn Heads Institute

The Board of Directors of the Drug Institute of America, Inc. at its first meeting since the annual election, selected Charles J. Lynn, Vice-President of Eli Lilly & Co., as chairman of the executive committee for 1935, succeeding Dr. William E. Weiss, who has served in this position since the organization of the Institute. The new vice-chairman is Albert C. Fritz, prominent independent retailer of Indianapolis.

Other members of the Executive Committee for 1935 are: Ralph H. Aronson, vice-president of Bourjois, Inc.; Henry P. Bristol, president of Bristol-Myers Co.; John W. Dargavel, secretary of the N.A.R.D.; George M. Gales, president of The Louis K. Liggett Co.; R. W. Johnson, president of Johnson & Johnson; A. Kiefer

CHARLES J. LYNN

Mayer, vice-president of Kiefer-Stewart Drug Co.; Harry H. Miller, Independent retailer; Carleton H. Palmer, president of E. R. Squibb & Sons; Wheeler Sammons.

The new members of the executive committee are Henry P. Bristol, Albert C. Fritz and Ralph H. Aronson, the others having served on the committee for the past year.

Wheeler Sammons was again elected managing director for the ensuing year, and in this capacity will be responsible for the active management of the institute.

Wheeler Sammons, in his report pointed out that two of three objectives which prompted formation of the Institute had already been achieved. These two objectives are: the organizing and bringing together around a common table the different branches of the industry for the formulating of principles of all-industry improvement, and the finding of some body that could report independently what the industry's members were actually doing in the daily operation of their businesses. This latter objective has been accomplished by the endorsement of Merchandising Facts.

The remaining objective upon which the efforts of the Institute are now focused, said Mr. Sammons, is the carefully planned and thoroughly coordinated campaign among retail pharmacists to adopt a policy of merchandising which will make every product stand on its own feet and make every individual sale carry its proportionate share of operating expense, eliminating loss leaders. This will be prosecuted vigorously during 1935.

Mr. Sammons also sounded a warning that if the industry failed to carry through the three primary objectives of the Institute as outlined, then no time should be lost in advising all factors of the suspension of activities as they would unquestionably face a serious crisis and a most important decision.

The budget of the Institute for 1935 will be approximately $75,000, of which, Mr. Sammons states, 99% will go directly into activities which should eventually register in the cash drawer of the retailer.

McCormick Heads N.A.I. & D.M.

National Association of Insecticide & Disinfectant Manufacturers has elected the following officers for 1935: president, Charles P. McCormick, McCormick & Co.; W. H. Eddy, Rochester Germicide Co., Rochester, N. Y., first vice-president; William Grieseiner, Black Flag Co., Baltimore, second vice-president; J. H. Wright, Zonite Products Corp., New York, secretary, and John Powell of John Powell & Co., New York, re-elected treasurer. Wallace Thomas of Gulf Refining Co., Pittsburgh, and Dr. G. F. Reddish, Lambert Pharmacal Co., St. Louis, are the new members of the board of governors, others having been renamed.

Helfrich Heads Chgo. Assn.

Chicago Perfumery, Soap & Extract Association has elected the following officers for 1935: president J. H. Helfrich, Helfrich Laboratories, Inc.; vice-president, George A. Wrisley, Allen B. Wrisley Co.; W. Kedzie Teller, secretary-treasurer.

Drug Trade Dinner

The Tenth Annual Drug, Chemical and Allied Trades Dinner will be held on Thursday evening, March 21st, 1935, at the Hotel Waldorf-Astoria, New York. The Reception begins at 6.30 P. M.

Committees are being set-up and plans are underway to make this the most successful dinner sponsored by the Section.

Shipman—Code Counsel

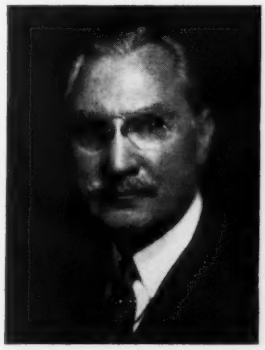
The Code Authority of the package medicine industry has appointed Mitchell M. Shipman as general counsel for the industry which includes approximately 1,500 manufacturers. He has offices with the Code Authority at 92 Varick Street, New York.

Weicker Heads Section

The forty-fourth annual meeting of the Drug, Chemical and Allied Trades section of the New York Board of Trade was held December 27 at noon in the Drug and Chemical Club, this city. Samuel W. Fraser, of Burroughs, Wellcome & Co., the chairman, presided.

In the annual election for officers and other executives the following were chosen:

Chariman, Herman G. Weicker, of the Dodge & Olcott Co.; Vice-chairman, Frank A. Blair, of the Centaur Co.; Treasurer (re-elected), S. Barksdale Penick, of S. B. Penick & Co.; Executive committee, Gustave Bayer, Merck & Co.; B. H. Badanes, McKesson & Robbins, Inc.; James C. Chilcott, Maltine Co.; Turner F. Currens, Norwich Pharmacal Co.; P. M. Dinkins, American Cyanamid Co.; Thomas R. Farrell, DRUG AND COSMETIC INDUSTRY; J. F. Hayes, Eli Lilly & Co.; Joseph A. Huis-



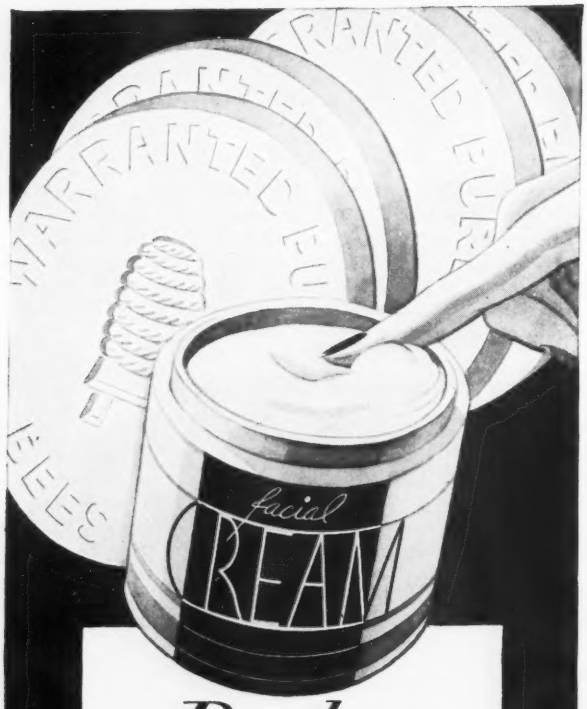
H. G. WEICKER

king, Charles L. Huisking & Co.; David L. Kaltman, D. Kaltman & Co.; Paul Muller, Owens-Illinois Glass Co.; J. J. Reiner, Lehn & Fink Products Co., and A. A. Wasserscheid, Mallinckrodt Chemical Works; Advisory Council, Samuel W. Fraser, Borroughs, Wellcome & Co., the retiring chairman of the section; Francis J. McDonough, New York Quinine & Chemical Works, Inc., Percy C. Magnus, Magnus, Mabee & Reynard, president of the New York Board of Trade; Charles A. Prickitt, Upjohn Co., and S. Barksdale Penick, S. B. Penick & Co.; George Simon of the Heyden Chemical Corporation, will represent the section as director on the board of the New York Board of Trade.

Salesmen's Christmas Party

The Salesmen's Association of the American Chemical Industry held its annual Christmas party, December 27, at the Park Central Hotel, this city. Approximately 225 members and guests attended. An old-fashioned beefsteak dinner was served at 7.30 p. m., followed by a floor show running more than two hours. John M. Alvarez, of the Grasselli Chemical Co., was formally inducted into the presidency, succeeding L. E. Swenson, of the American Cyanamid & Chemical Corp. J. P. Lep-

FINE CREAMS REQUIRE PURE WHITE BEESWAX



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● Pure white beeswax will produce a fine-textured, white cream which will win and hold your customers.

Beehive Brand Beeswax is refined from the best of crude beeswax by methods at once traditional with Will & Baumer and yet scientifically modern. Beehive Brand Beeswax is sun-and-air bleached in our own modernly arranged and equipped bleachery. Because of its superior quality, smaller quantities can be used with improved results.

If you are interested in investigating the possibilities for improvement in your products, just write for further information to:

Department A-7

WILL & BAUMER CANDLE CO., INC.

Established 1855 Syracuse, New York

Spermaceti Ceresine Yellow Beeswax
Composition Waxes Hydistear Red Oil Stearic Acid

Prepare Now for Big Business on

SUNTAN PREPARATIONS

The following materials are effective—

CONTRASOL—A bland pure chemical, soluble in oils, which is opaque to Blistering Rays (2,900-3,300 Ang. Units) but which permits passage of tanning (non-burning) rays—per lb. $6.00, trial ¼ lb. $2.00.

SODIUM NAPHTHOL 6:8 DISULPHONATE Purified—Highly recommended, soluble in water—per lb. $5.00, trial ¼ lb. $1.50.

PEANUT OIL, White Refined—Superior to other oils for this purpose—trial quart 60c, gallons $2.00, 5 gallons at $1.85, lower prices in quantity.

ANTIRANCIDOL—Prevents rancidity in vegetable and animal oils—trial ¼ lb. $1.00, 1 lb. at $3.00.

ALL QUOTATIONS F. O. B. NEW YORK

R. F. REVSON CO.

91 Seventh Avenue New York

Specializing in
Chemicals for the Cosmetic Industry

GEORGE LUEDERS & CO.

(Established 1885)

427-429 Washington St., NEW YORK

Branches:
CHICAGO SAN FRANCISCO MONTREAL
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Manufacturers, importers and dealers in
ESSENTIAL OILS
and
SYNTHETIC AROMATIC CHEMICALS

Our Specialty

Perfumery Compounds for Cosmetics and Toilet Articles in General

With our long and varied experience we may be in position to assist you, or to solve one or another of your problems if you will consult with us.

part, of the Columbia Alkali Corp., was elected vice-president; Charles Licthenberg, of Commercial Solvents, Inc., secretary; and Walter Murphy, of *Chemical Industries*, treasurer.

Michigan Christmas Party

The second annual Christmas party and ladies night of the Michigan Cosmetic & Extract Association was held at the Northwood Inn, near Detroit, December 14th. Among the out-of-towners present, were C. A. Hanley, Felton Chemical Co.; A. Doolittle, president, Compagnie Parento, Inc.; Asa B. Foster, sales mgr. D. W. Hutchinson Co., Inc.; F. C. Theile, president, P. R. Dreyer, Inc.

A souvenir box was given to every member present, special boxes being given to each of the ladies and men. A floor show including a famous dance team who gave their interpretation of the "Carioca," appeared twice during the evening. President Colter was later seen dancing with the charming female half of the dance team. Fred Theile came to the party from a cocktail tete a tete, like bringing a ham sandwich to a banquet. Ray Vicary and Mr. Hedke had charge of the ticket drawing for door prizes. Pat O'Rourke convalescing from an operation was there big as ever. Among the high spots of the party was the giving of over twenty door prizes, among which were many $5.00 cash prizes. Many of the ladies were the recipients of prizes, particularly the cash prizes. A. Doolittle came to the party stag, later being seen with a different dancing partner every five minutes. Credit for its success goes to Doc Cole, Paul Porier, Ray Vicary, and Otto Wegner all of whom worked most diligently.

Pharmaceutical Code Authority

Members of the code authority of the Pharmaceutical and Biological Industry are: Carl N. Angst, Pitman-Moore Co., Indianapolis, Ind.; Horace W. Bigelow, Parke-Davis & Co., Detroit; Clifford V. Haver, Haver-Glover Laboratories, Kansas City, Mo.; John G. Searle, G. D. Searle & Co., Chicago; A. Homer Smith, Sharp & Dohme, Philadelphia.

The code authority has proposed the following budget for code administration and as a basis of contribution to the same by members of the industry.

The total amount of the budget for the period from November 7, 1934, to June 15, 1935, is $32,000. The basis of contribution is as follows, figured upon the number of employees:

1 to 20 employees	$ 25.00
21 to 40 "	50.00
41 to 80 "	100.00
81 to 150 "	200.00
151 to 300 "	400.00
301 to 500 "	750.00
501 to 700 "	1,500.00
More than 700 "	2,500.00

Veale on Code Authority

William R. Veale of the Colgate-Palmolive-Peet Co., New York, has been elected a member of the Code Authority for the cosmetic industry, representing manufacturers doing a business in excess of $500,000 per year. He succeeds Jean Despres of Coty, Inc., who resigned as representative of this group.

The new trade practice compliance committee of the Code Authority consists of William Jacobs, George W. Button Co., New York, J. H. McShane, Pacquin Laboratories, New York; R. Grant, Veolay, Inc., New York; R. A. Clark, Inecto, Inc., New York; H. L. Brooks, Coty, Inc., New York.

The trade practice planning and statistics committee, whose duties will be to

WILLIAM R. VEALE

study code provisions and their effect upon methods of competition, consists of F. N. Dodge of Harriet Hubbard Ayer, New York; Jean Despres, Coty, Inc., New York; C. A. Pennock, Richard Hudnut, New York; P. Vallee, Roger & Gallet, New York; W. R. Veale, Colgate-Palmolive-Peet Co., New York; J. I. Poses, A. A. Vantine, Inc., New York.

Inter-Code Relations Committee consists of R. A. Clark, Inecto, Inc., New York; H. S. Lyon, Comfort Manufacturing Co., Chicago; W. R. Veale, Colgate-Palmolive-Peet Co., New York.

A report of the Finance Committee revealed that approximately 76% of the amount of the budget had already been contributed by more than 70% of the members of the Industry. The method of procedure approved by N.R.A. was being instituted to collect assessments not paid, levied against the remaining members. Subsequent to this meeting, in response to registered letter demands, the collection of assessments has risen to 88%. In view of the fact that the due date for all assessments has been recently passsed, the amount named is indicative of a willingness on the part of the members of this Industry to contribute the monies necessary for Code Administration with an expectation of benefits to be received.

A smaller number, in paying assessments, expressed the opinion that the benefits already obtained through operating under the Code has resulted in a saving, far beyond the cost involved.

One of the complaints heard by the Trade Practice Compliance Committee was against a manufacturer whose product was advertised by a large and reputable retail department store. The particular objectionable statement used in the "ad" was that many face powders were harmful. This particular statement was disapproved by the Trade Practice Compliance Committee as a violation (of Article VII, Sections 5 (a) and 6 (a) of the Code of this Industry, as an inaccurate reflection upon merchandise of competitors. Resulting from the efforts of the Committee, the advertisement appeared only once and the manufacturer has agreed not to repeat it.

Another statement in a retail "ad" was "it (a particular powder) contains a skin element which is absorbed by the skin, nourishing it during the day." The particular manufacturer disclaimed responsibility for this statement, and agreed that it would not be repeated.

The Code Authority also granted a hearing to twenty members of the industry who, for various reasons, protested the assessment of the Code Authority. While the names of the particular respondents are not published, many varied and interesting questions were raised as to the validity of certain assessments which may be of guidance to other members of the Industry.

One question raised by Counsel for a large manufacturer, principally engaged in the manufacture of Pharmaceutical and Biological products, was whether or not this industry had the right to require compliance, including assessment, from the particular manufacturer and others similarly situated.

On the question of compliance, it was ruled, on advice of Counsel and the Administration Member who was present, that no manufacturer, manufacturing or packaging from bulk, importing in consumer packages, or having manufactured for him under his own Trade-Mark, brand, or trade name, could be exempted from compliance with the Fair Trade Practice Provisions of the Code, or the requirement for filing of statistical information.

On the question of assessment, this Code Authority in obtaining termination of the stay granted in paragraph III Administrative Order X-36 are empowered to assess any manufacturer of cosmetics as defined by the Code, irrespective as to whether or not such manufacturing operation constitutes their principal line of business. The Code Authority however, in its effort to minimize the obligations of persons or corporations who may engage in cosmetic lines as a minor part of their business has voluntarily petitioned the Administration to exempt such persons or corporations as may be principally engaged in another Industry from the obligation to pay any

LIQUID STYRAX U. S. P.

This valuable fixative with its wider usefulness in hyacinth, jasmin, lilac and Oriental compositions is imported by us from the Near East. Supplies are obtainable at all times to insure immediate deliveries. In convenient 25, 10, 5 and 1 pound containers, or larger quantities as desired.

We will be glad to cooperate with you in pointing out how you may obtain utmost service from this useful product.

MM&R PINE OILS

Oil Pine Needles Siberian
H. M. Pine Oil (American Steam Distilled)
Oil Pine Bouquet MM&R (for bath salts)
Oil Royal Conifer Bouquet MM&R
Oil Pini Pumilionis USP (Dwarf Pine Needles)
Oil Pinus Sylvestris
Oil Pine "T" Bouquet MM&R
Oil Pine Needle Bouquet V.H. MM&R

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ESSENTIAL OILS AROMATIC CHEMICALS
BASIC PERFUME AND FLAVOR MATERIALS

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ABSORPTION BASE
(Free Sterols of Lanoline)

The HEART *of* LANOLINE
(A true OXYCHOLESTERIN product)
PURE - NEUTRAL

It PENETRATES

CONTAINS NO PETROLEUM JELLY
SAFE FOR BABY'S SKIN
RECOMMENDED FOR
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"FALBA" ABSORPTION BASE is produced in our own laboratories. Supplies always available.

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W.H.B. BEESWAX

Sun Bleached Pure Refined

100% Pure U. S. P.
GUARANTEED

Can be counted on to do its job and show you an improvement in your products. Ask for Free Sample.

Spermaceti Ceresin
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THE W. H. BOWDLEAR CO.

SYRACUSE, N. Y.

Representatives:

CHICAGO	BROOKLYN	DETROIT	PITTSBURGH
Riviera Products Co.	Mr. L. A. Barber	J. L. Matthieu Sons	Mr. J. C. Ackerman
215 W. Ohio St.	43 S. Portland Ave.	239 Chalmers Ave.	420 Oliver Bldg.

assessment to this Code Authority unless their perfume and cosmetic business is in an amount in excess of $5,000.

Another interesting protest was based on the fact that a manufacturer's assessment was based not only on his domestic, but also on his export sales. The Code Authority ruled that inasmuch as it was obligated to enforce the labor provisions of this Code upon a manufacturer who might export all of his products from the country, that such manufacturer was under an obligation to pay his assessment based on this particular type of business.

A. P. M. A. Meeting

American Pharmaceutical Mfrs. Assn. held its fall meeting at the Hotel Washington, Washington, D. C., December 13 and 14. At that time, it passed a resolution stating that constructive revision of the Food and Drugs Act is in the public interest and that the revised Act should prohibit the false or deceptive advertising of drugs.

Among the speakers at the meeting were Carl N. Angst, president of the association; Charles Wesley Dunn, counsel, Paul Klemptner, Dr. Charles E. Vanderkleed, Lynn A. Watt, W. A. Crusinberry, Jason L. Russell, Phillips H. Schmidt, and F. W. Misch.

The association's annual spring meeting will be held at Hershey, Pa., week of June 3.

Trade Practice Rules Wholesalers

Rules of fair trade practice for the wholesale drug industry of the country, adopted at a trade practice conference of that industry held in Chicago December 6, have been approved by the Federal Trade Commission.

Among other things, practices declared to be unfair in that industry include deceptive or misleading advertising statements, defamation of competitors, secret payment of rebates, commissions, etc., imitation of trade-marks, trade names, slogans and other marks of identification of competitors which tends to deceive prospective purchasers, unauthorized substitution of products, and other similarly unfair trade practices and abuses.

The trade practice conference for the wholesale drug industry was held under the sponsorship of the Federal Trade Commission, with Commissioner Charles H. March presiding. Between 400 and 500 wholesale druggists were present in person or by proxy, representing approximately 95 per cent of the membership of that industry in the country. Following their adoption by the conference, the fair trade practice rules were submitted to the Federal Trade Commission for its consideration and approval.

U. S. P.

New Ergot Monograph

Committee of Revision of the U. S. Pharmacopoeia has announced a new U.S.P. X. interim revision of the ergot assay.

The first Interim Revision of the Tenth Revision of the Pharmacopoeia became official on January 1, 1934, and made certain changes in the assay of ergot and its fluidextract, also a modification of the manufacturing method for the fluidextract of ergot. In the first revision, the standard for ergot remained as in the original text, namely, a fluid preparation of ergot.

Since then, however, as a result of further investigation, it has been found desirable to adopt the alkaloidal salt, ergotoxine ethanesulfonate, as the official ergot standard.

For the purpose of insuring uniformity in the ergotoxine ethanesulfonate to be used as the official ergot standard, the U.S.P. Board of Trustees have arranged for the packaging in ampuls, under nitrogen, of a carefully standardized lot of this alkaloidal salt. This Ergot standard may be obtained through the office of the Chairman of the U.S.P. Committee of Revision, 43d Street and Woodland Avenue, Philadelphia, Pa.

By this new revision (No. 3) ergot will be required to possess a potency, per gram, equivalent to not less than that of 0.5 milligram of the official standard and the fluidextract must be adjusted to possess a potency, per cubic centimeter, equivalent to that of not less than 0.4 milligram and not more than 0.65 milligram of the standard ergotoxine ethanesulfonate.

The new monographs for Ergot and Fluidextract of Ergot released in Interim Revision No. 3 on January 1, 1935, will become official and enforceable on May 1, 1935. Anyone desiring a copy of the "Interim Revision Announcement No. 3" may obtain it by addressing the Chairman, E. Fullerton Cook, 43d Street and Woodland Avenue, Philadelphia, accompanying their request with *ten cents in stamps* to cover printing and distribution.

Obituaries

John E. Andrus

John E. Andrus, founder and president of the Arlington Chemical Co., the Palisade Manufacturing Co., and the New York Pharmacal Association, all of Yonkers, N. Y., and reputed to be one of the twelve richest men in this country, died of pneumonia at his home in Yonkers, December 26. He was ninety-three years old.

His introduction to the pharmaceutical business was when he entered the chemical firm of Reed, Carnick & Andrus, New York, in 1864. In 1869, he married Miss Julia Dyckman. Mr. Andrus had devised a scheme of putting iron into pill form with a coating of syrup. Mrs. Andrus urged him to start a chemical business for the manufacture of the pills. He did so and it was not long before the preparations had found widespread use.

He was often referred to as the "millionaire strap-hanger" because he preferred to travel by trolley rather than by automobile, and did not take to the modern method until years made it impossible for him to venture in the crowds.

Mrs. James J. Kerrigan

Mrs. Laura Kerrigan, wife of James J. Kerrigan, vice-president and director of sales of Merck & Co., Rahway, N. J., died December 28 in her home in Summit, N. J. She had been ill but a few days with pleurisy and pneumonia.

Adelbert M. Foster

Adelbert M. Foster, president of the Foster-Forbes Company, Marion, Ind., glass bottle manufacturer, died in the Presbyterian Hospital, Chicago, December 20. He was seventy-five years old. Mr. Foster had been in the glass bottle business for more than sixty years and was known as the dean of the industry.

Harold A. Shaw

Harold A. Shaw, advertising manager for the Pneumatic Scale Corp., Ltd., North Quincy, Mass., died December 15th at St. Petersburg, Fla.

He had been ailing for several years and had gone to Florida in an attempt to regain his health. He was born in Chelsea, Massachusetts, June 13, 1879 and had been with the Pneumatic Scale Corp. ever since the Standard Automatic Machine Co. of Rochester, N. Y. was taken over in 1925. He was elected to the office of advertising manager upon the death of Mr. William K. Embleton a little more than a year ago. He is survived by his wife, Mrs. Mary Shaw.

D. J. Mahler

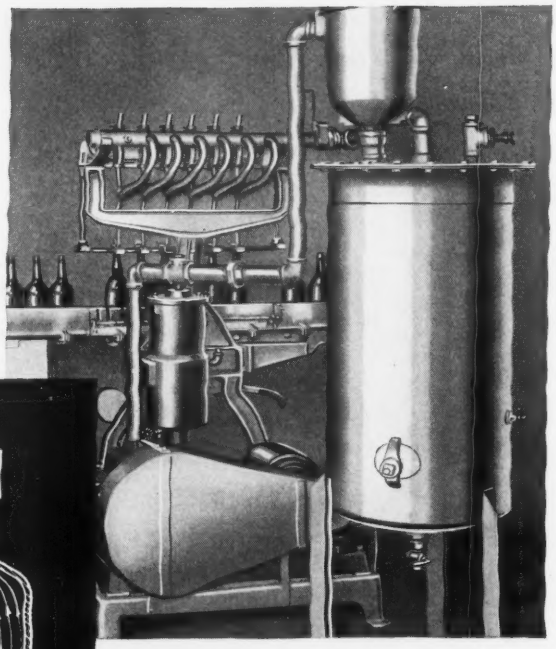
D. J. Mahler, head of the D. J. Mahler Co., cosmetics, East Providence, R. I., died at that city on December 13. He was one of the first manufacturers to specialize in the sale of cosmetics by mail.

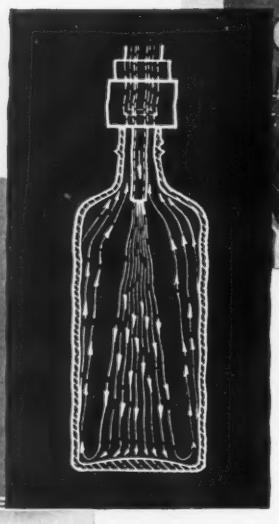
Herbert G. Lowe

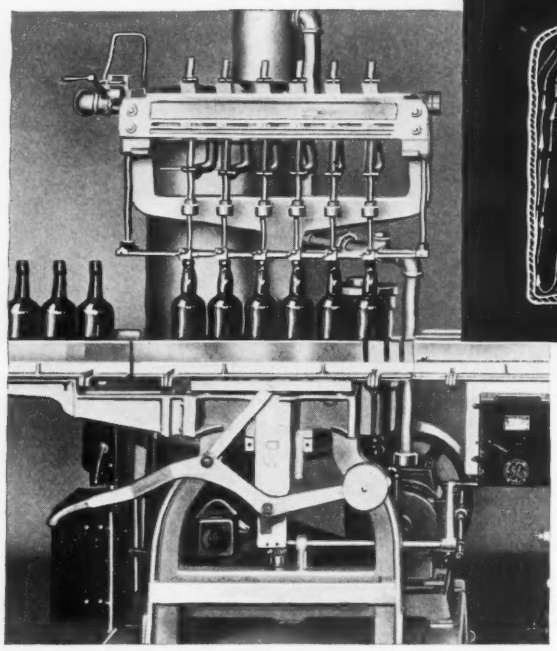
Herbert G. Lowe, founder and president of the Lowe Paper Company, Ridgefield, N. J., died on November 25. A pioneer coated board manufacturer, Mr. Lowe organized his own business in 1905. Ill health compelled him to give up many of his duties in the business in 1930 and his sons, Donald V. and Malcolm B., continue in the management of the concern.

Quick! Simple!

ONE OPERATION GETS ALL THE DIRT







Dry VACUUM CLEANING

Pneumatic vacuum cleaning is the simplest, quickest and the most thorough method of cleaning new bottles preparatory to the filling operation.

By direct, straight-line feed the bottles are placed in position under the cleaning nozzle. A high velocity stream of air at atmospheric pressure dislodges all carton dust and accumulated foreign matter, discharging it into a receiving tank. Cleaning by this dry vacuum method prevents troublesome moisture condensation inside the bottles. The bottles are delivered absolutely clean and dry—in perfect condition for speedy, easy filling and labeling. The fact that there is no moisture present eliminates any possibility of filmy deposits on the glass interior.

The best way to determine the outstanding advantages of Pneumatic vacuum cleaning is to compare it with other methods. Let us send you the facts to make this comparison. Write today.

PNEUMATIC MACHINES

Carton Feeders — Bottom Sealers — Lining Machines — Weighing Machines (Net and Gross) — Top Sealers — Tight Wrapping Machines — Capping Machines — Labeling Machines — Vacuum Cleaning and Filling Machines (for liquids or semi-liquids) — Tea Ball Machines — Box Making Machines

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70 Newport Ave., Quincy, Mass. (Norfolk Downs Station)

Branch Offices in New York, 117 Liberty Street; Chicago, 360 North Michigan Avenue; San Francisco, 320 Market Street; Melbourne, Victoria; Sydney, N. S. W. and Trafalgar House, No. 12 Whitehall, London, England

PNEUMATIC SCALE *Bottling Equipment*

PRODUCTION FORUM

By Francis Chilson
Production Engineer

This department invites inquiries from manufacturers seeking equipment for producing or packaging drug and cosmetic products. No charge is made for this service.

PLANT HEATING

The usual type of radiator for factory, office or even for home heating is as inefficient as can well be imagined when compared with fin coil heaters. In recent construction we installed fin coil units called Venturafin heating units made by the American Blower Co. and the heat from them with a steam pressure of only five pounds was amazing. At a distance of sixty feet you could feel the warm air from them. With radiators the amount of air heated is determined by the area of the radiators and their surface temperature. Fin coils operate the same way excepting that cold air is not brought to the unit by displacement but is forced to and through the coils by means of fans. There are a great many of these in operation, but most of those we've seen, when used for recirculating and heating inside air, are not properly installed. We refer to cases where the units are installed near the ceiling. Here they keep recirculating warm air. If for any reason the unit must be kept up in the air, then intake ducts should be extended down to the floor so as to draw in the coldest air. When possible we prefer to locate them as near to the floor line as possible.

WHAT'S NEW?

THE SYNTRON CO., PITTSBURGH, have introduced a vibrating feed hopper which can be installed on packaging equipment or in manufacturing processes where accurate, continuous feeding is required. The unit combines a vibrating hopper and a feeding trough. By turning a rheostat one way or another the frequency is increased or decreased thus changing the amount of material which will be fed to and pass over the feeder trough.

HOME MFG. CO., CHICAGO, introduces a portable kerosene burner which can be used for wax melting, for heating stills, water jacketed kettles and for hot water boilers up to fifty gallons. In small plants where low pressure steam and hot water are required this little burner will prove as useful as it will in laboratory work.

S. HOWES CO., SILVER CREEK, N. Y., is offering a small compact oscilator which can be used in making shaking sifter boxes and granulating screens.

DURANT MFG. CO., MILWAUKEE, is selling counting equipment consisting of a light source, photo-electric relay and accumulator. By putting the light source across a conveyor belt from the relay you can obtain an accurate count of packages traveling on the belt no matter how fast or close together they may be traveling. The packages break the beam of light and the interruption causes the relay to operate the accumulator or counter.

BUFFALO METER CO., advises you to quit measuring batches with a notched stick or a gallon measure and to use instead, one of their meters. They have any God's quantity of them calibrated for gallons, pints or ounces. Some of them have dials which accumulate a total and which also show the amount passing through for a given batch. This latter dial can be turned back so that it always starts at zero, thus making it easy to measure batches of liquids.

GO-ELECTRIC CORPORATION, NATICK, MASS., calls your attention to an electric oven which it is planning to sell through the retail drug trade for $15.00. This device is big enough to cook an entire meal on and useful enough to be handy in a laboratory, for heating molds or other utility purposes where heat is required.

LEWIS SHEPPARD, MFG. CO., BOSTON, MASS., has amplified its line of portable hoists and stackers to include drum and pony mixer can hoists. If you want to dump drums of mineral oil into elevated tanks or pony mixer cans into filling machine hoppers, Sheppard has a standard tilting sling to do the trick.

J. L. FERGUSON COMPANY, JOLIET, ILL. wants you to write for their new bulletins describing their complete line of packaging machinery including fillers for face powder and other dry materials, automatic case gluers and sealers, labelers, volumetric fillers, etc.

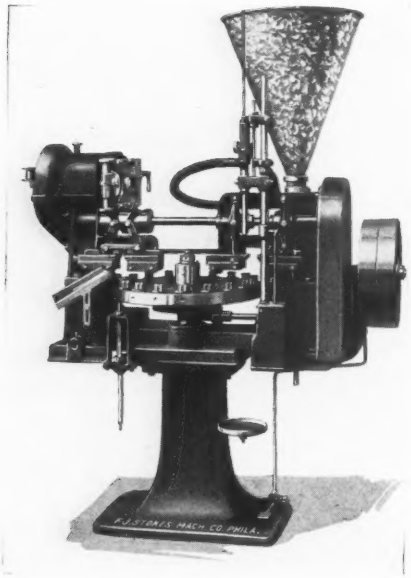
LINK BELT CO., PHILADELPHIA, has sent us a circular describing their helical screw conveyor. This machine is somewhat different from the usual type of screw conveyor in that it is tighter and is designed for vertical as well as horizontal movement. Standard units combine a horizontal element for feeding and a vertical leg for lifting. This conveyor can be used for loading machines with dry materials such as ground drugs, talc, etc.

FIRST MACHINERY CORP., NEW YORK, has added a new machinery department and will carry a relatively complete line of manufacturing and packaging equipment.

LABORATORY EXTRACTION

In another part of the paper we have made some comments on drug extraction, utilizing centrigufal force as the best possible means of separating the percolate from the saturated marc. It occurred to us that some of you might like to experiment with the method and to this end we suggest that you buy one of the new fangled washing machines which you can get in any department store for about $75. These units consist of a tank containing an agitator, a small centrifugal and a pump. Of course the shell of the tank is made of relatively light gauge enameled metal, and in spite of the fact that most standard models are made with corrugated walls, we doubt if they will withstand even a moderately high vacuum. Strength can be imparted by building a steel supporting frame work for the

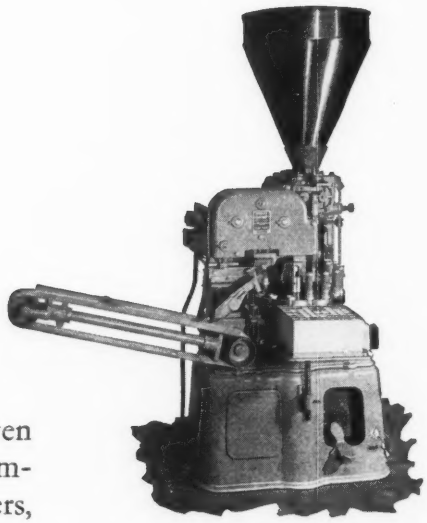
1923



No. 90 Tube Filler, Closer and Clipper
30 per minute—uses clips

New Machines! New Economies!

FJS



1935

No. 90 DH Tube Filler and Sealer
35-50 per minute—uses new WESTITE Closure (see below) and both types of "DiamonLock" Clipless Closures.

During the past few years we have concentrated even more than before on re-designing and improving our complete line—tablet machines, tube fillers, powder fillers, water stills, etc., etc. The illustrations speak for themselves. This is but one example.

Our new catalog describes the latest improved models of all our tube, jar and powder fillers—hand operated to full automatic machines—as well as auxiliary equipment.

Send for this catalog today.

STOKES

Pharmaceutical and Perfumer's Equipment

Tablet Making Machines
Tablet Triturate Molds
Coating and Polishing Pans
Granulating Mixers
Oscillating Granulators
Drying Closets
Drug Mills
Ball and Jar Mills
Sifters and Mixers
Jacketed Kettles
Emulsifiers
Suppository Molds
Lip Stick Molds
Compact Presses
Ointment Mills
Capsule Molds
Capsule Fillers
Powder Fillers
Tube and Jar Fillers
Bottle Washers
Percolators and Extractors
Vacuum Stills
Vacuum Dryers
Vacuum Pumps
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Water Stills
Conveyors
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STOKES'
·WESTITE·
CLOSURE

A new air-tight, leak proof, clipless closure, that is ideal for certain types of tooth pastes, shaving creams, etc. Ask for sample tube and descriptive folder.

FJSTOKES MACHINE COMPANY

Pharmaceutical and Perfumer's Equipment Since 1895

5932 TABOR ROAD OLNEY P. O. PHILADELPHIA, PA.

interior of the washing—or in this case—extraction tank. And you can make a vacuum tight cover with an air cock easily enough and fasten it to the top of the tank. The problem of drilling the enamel for the cover bolts without shipping it is not easy and it cannot be done with a large drill. The thing to do is to use a jewelers drill and make a lot of little overlapping holes until the bolt hole is large enough. If this is done slowly and carefully you wont chip the enamel to a noticeable extent. In addition to making the cover you will have to have to rig up a small vacuum pump so that you can draw a vacuum on the mixing tank, and you will also have to make a cover for the centrifugal to prevent solvent loss. To operate the unit you would dump the drug into the mixing tank, add sufficient solvent, bolt on the cover and mix for a few minutes. Then you would pull a vacuum on it and hold at about 28 inches for about fifteen minutes, and then break it by opening the vent cock on the cover. This will impregnate the drug thoroughly. Finally you would open the cover, start the centrifugal and ladle the saturated drug into it. As the percolate was thrown off, the pump would carry it away into a container. Naturally the results to be obtained from such a set-up would not be even approximately as good as those obtainable from large unit because the centrifugal is by no means as fast. But it would be good enough to test the idea and to run small lots and it would serve as a very useful little set-up for laboratory extractions.

TUBE FEEDING

It is always a very difficult matter to synchronize a conveyor belt with a positively driven mechanism such as a cartoner because of irregular spacing due to belt slippage and intermittent starting and stopping the tube filler. In very large operations this is accomplished by extending the bucket chain of the cartoner through the tube filler. The problem lies only in the attempt to hook up a small automatic having a belt delivery with an automatic cartoner. In many cases no attempt is made to feed the cartoner directly and a girl is stationed at the end of the tube filler belt to take the tubes off and to place them into the cartoner buckets. In a hook-up like this we had very good luck with a chute arrangement having a trap door bottom located directly above the buckets of the cartoner. The buckets themselves operate this trap door. It falls into the bucket when the bucket is in the right position allowing the tube to fall in beside it. As the chain travels along it forces the trap door to close again so that the next tube cannot fall between the buckets. It is held on the trap door until the following bucket comes into position. Then the trap door falls into the bucket and the tube with it. Such an arrangement while it kept the tubes from falling between the buckets where they would cause a jam, did not make any provision for keeping two tubes from getting into the bucket together, as they occasionally did when they came off the tube filler belt very close together. So then we added a spacing mechanism, actuated by an additional trap door. A rod was fastened to this trap and also to a gate located across the tube filler belt. This gate was made to rise and fall with the passage of each bucket so that when the trap door of the delivery chute was closed the gate across the delivery belt was down and kept the next tube back until the trap door on the delivery chute had opened again.

A NEW ELECTRIC VIBRATING SCREEN

That most necessary and at the same time most tedious job of screening either liquids or dry products can now be done quicker and better than ever before according to the Paterson Engineering Co., 420 Sansom st., Philadelphia; who are now offering their Paterson Duplex Screen which is described as the only screen that

has no holes in the wire-cloth sieve. There are no bolts and no screws which are replaced with a Sieve Lock-Ring that "seats" the sieve in the 18″ x 5″ Sieve Basket made of any desired metal.

The wire-sieve, which is held by the turn of a single wing-nut on the Lock Ring, can be removed or replaced in a moment.

Cloth Discs are furnished in one-ply and two-ply, 22″ in diameter, and made to quickly "Pull Over" an easily cleaned coarse-mesh (#8) wire sieve which supports them.

Another exclusive feature of the Paterson Duplex Screen is an extra or "Duplex" Basket which fits inside the seamless Sieve Basket, when it is desired to make two screenings at one time.

The Paterson Duplex Screen is said to be the only one on the market with Controlled Vibration, which is quickly regulated to suit the mesh of sieve used and the product being screened. This sifter is said to be dust proof.

MACHINES WE WANT

In looking over the equipment inventory for the old year we find that we need several machines for which there is a general need, though none are available in standard models. Here's the list and equipment makers are invited to get busy:

We need a machine for depositing paper or foil discs on the surface of cream jars, ointment pats and into tablet boxes.

We need a machine for assembling face powder boxes automatically.

We need a good, semi-automatic cartoning machine which will be adjustable for a wide range of sizes. If we can't get this give us a gadget that will set the cartons up and close one end.

We need an adjustable wrapping device for cellophane and similar papers.

We need a machine to fill tablets into bottles and insert a plug of cotton into the bottle and cap them.

We need a machine for depositing or inserting folded circulars.

We need a semi-automatic machine for cleaning bottles with air.

We need a machine which will feed, fill and close vest pocket tablet tins.

We need simpler and faster label coding and dating machines and we also need devices that can be attached to standard labeling equipment for code branding. (We already have dating attachments for labels and cartoners but we want something less easily duplicated.)

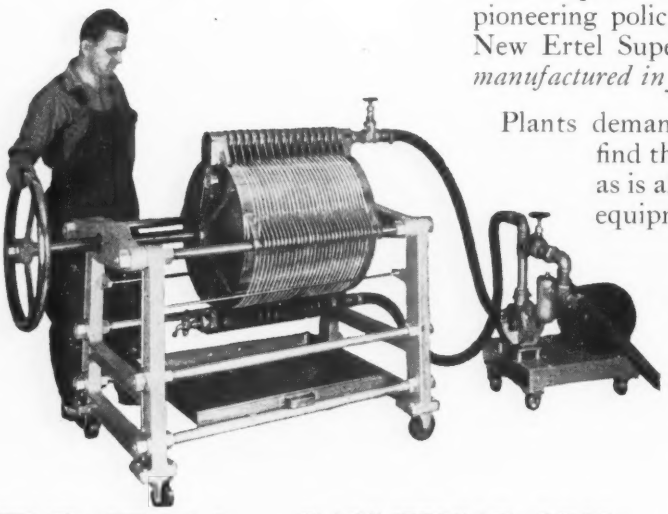
We need a capper for feeding and applying long skirted caps.

We need less secrecy and greater cooperation among plant men.

SPRAY CRYSTALLIZATION

We have a letter from one of the boys connected with a prominent drug house who asks: "We are up against a knotty problem in connection with a mixture of chemicals which we market in a dry crystalline form. When we put the chemicals into solution for the purpose of making a saturated solution as a preliminary to re-crystallization, we haven't been able to find a way of obtaining uniform crystals. We can't mix these crystals as they are received in the original state because of the disparity in the size of the crystals of the different chemicals concerned. Besides we find it necessary to dissolve all the chemicals together so as to secure a certain chemical reaction and also to provide from correct dosage of the more potent chemicals that form a very small percentage of the mixture. Do you know of any means by which such a process

The *New* ERTEL Super-Filter is here!



PIONEERING won for Ertel a position of leadership in the bottling machinery field. This pioneering policy inspired the designing of the New Ertel Super-Filter—*the largest of its kind manufactured in the United States.*

Plants demanding large capacity equipment find this filter efficient and economical; as is all the other Ertel liquid handling equipment.

Capacity 20 to 50 gallons per minute. Will hold 10 to 100 large filter disks . . . in filtering area 30 of these equal 100 of the Ertel standard 12 in. diameter disks.

Mounted on portable casters, the Super-Filter can be readily moved from place to place.

ERTEL ENGINEERING CORP.
120 EAST 16th ST., N. Y.

REBUILT EQUIPMENT

Every item shipped from our shops is overhauled and definitely guaranteed

1—Anderson fully automatic Carton Filler, Weigher, Sealer.
1—Package Machinery Co. Cellophane Wrapping Machine.
5—Filling and Weighing Machines.
10—World Improved, Ermold, National Labelers.
2—Karl Kiefer Visco Jar Fillers.
1—400-gal. Pfaudler Glass-Lined Vacuum Still.
1—Rogers 6′ copper Vacuum Pan.
2—Capem 4-head automatic Screw Cappers.
1—U. S. 22-sprout rotary Vacuum Filler.
8—80-qt. Reed, Hobart, Century Mixers.
3—Coombs Gyratory Sifters, 20″, motor driven.
1—Karl Kiefer 5-spout tray-type Vacuum Filler.
Dry Powder Mixers, 100 to 4000 lbs.
Colton Tube Fillers, Closers, Clippers.
12″ dia. Disc Filters, 4, 10, 20 plates.
New high-speed and back-geared Portable Agitators.
Pony Mixers,—Laboratory, 8, 15, 40 gallons.
New Glass-Lined Tanks, 10 to 500 gallons.
Tablet Machines—Colton 3B, single punch; Mulford single punch; Stokes Eureka hand; Stokes Rotary "B;" Stokes "M" single.
Copper and Aluminum steam-jacketed Kettles, 25 to 300 gallons.
Miscellaneous—Drug Mills, Filter Presses, Pulverizers, Jacketed Mixers, Ointment Mills, Screens, Revolving Pans, Dryers, Pumps, etc. Send for latest printed lists.

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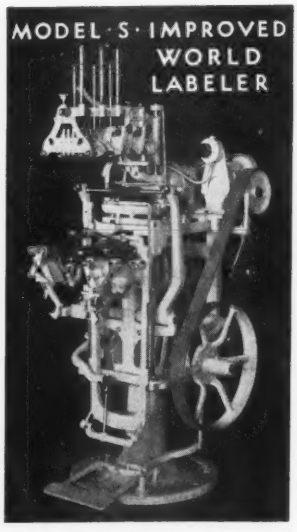


The most flexible labeling machine. Easily equipped for labeling any size bottle or jar. Many exclusive mechanical features, developed by manufacturing experience of more than 35 years.

Economic Machinery Company
WORCESTER, MASS.
Makers of Complete line of automatic and semi-automatic labelers.

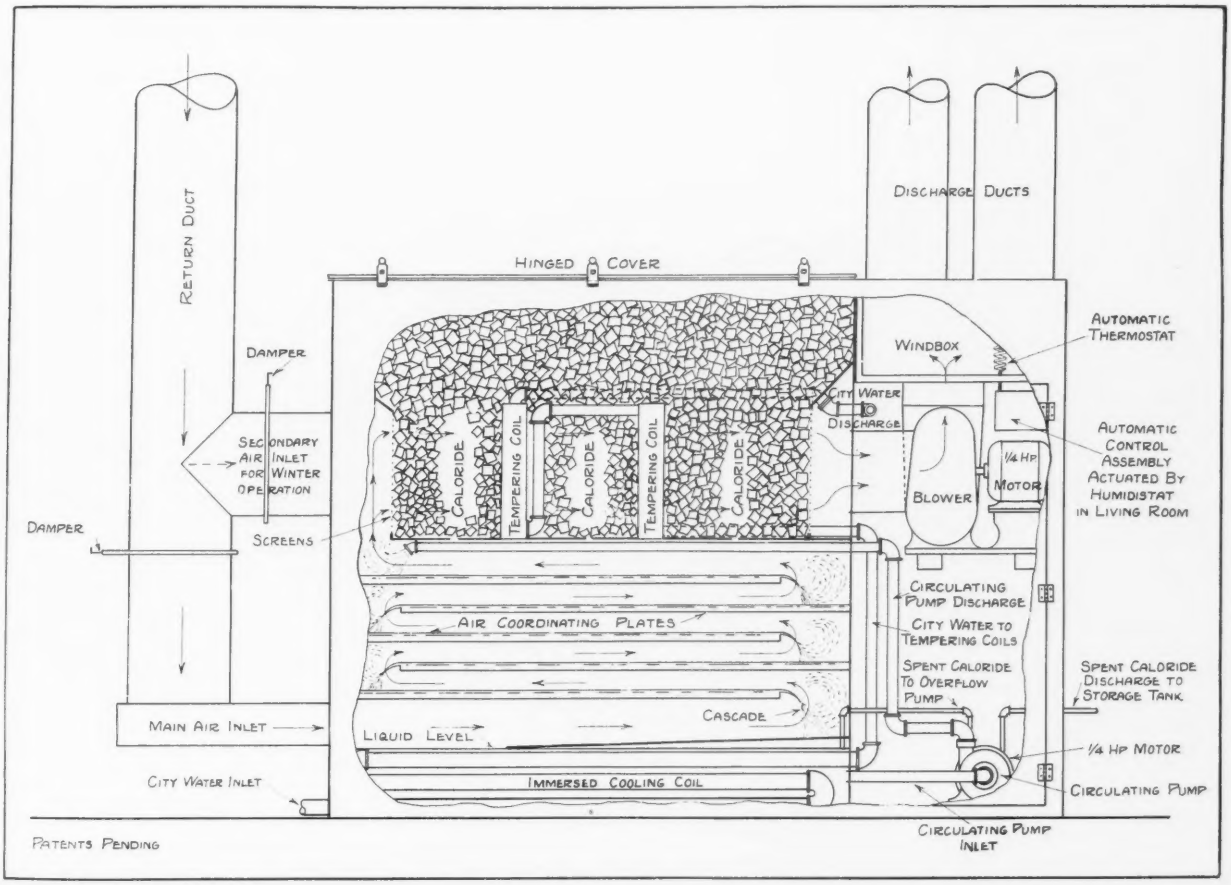
could be carried out to accomplish the desired result."

Our friend does us the honor of assuming that we are a magician. He hasn't told us what chemicals he is using or whether or not they are affected by heat or what solvent he is using. So in the absence of this very necessary information we can only make a more or less wild guess. With the proper conditions known we'd be inclined to try atomizing it under vacuum. We'd probably use a powdered milk machine. Assuming that the solvent is alcohol (which we'd favor because it vaporizes so easily) we'd pump the solution through an atomizer at very high pressure into a vacuum chamber. The alcohol would go off at once—and it could be recovered by means of a suitable condenser—and the minute crystals would fall to the bottom of the chamber. The size of these crystals could be governed by the amount of pressure against the atomizer. The same method would work with water too, just as it does in the case of milk powder, although somewhat more slowly. Here's hoping this gives you a lead.

CHEMICAL DRYER-AIR CONDITIONER

RESEARCH CORPORATION, New York, invites your attention to the Calorider system which they have perfected for air drying, air conditioning and humidification. The machine is recommended for such drying operations as tablet granulation rooms; for drying the air in rooms where hygroscopic, effervescent salts and other chemicals are manufactured and packaged, for drying air in bottle drying rooms and all other operations where dry air is required. The air of the room in which the unit is located is recirculated with no temperature loss. But by means of passing steam or a refrigerant as the case may be through the tempering coils of the machine the discharged air can be heated or cooled as required. The machine utilizes both liquid and dry chemicals, evidently a prepared mixture of calcium chloride and activated carbon. The lower part of the unit contains the air inlet and a series of pans containing the liquid chemical mixture. These pans are located one above the other and the chemical mixture is kept circulating through them by means of a small pump. The liquid is pumped into one end of the top pan and it cascades from the opposite end to the pan below it. This process continues until it reaches the reservoir at the bottom from which it is pumped again to the top pan. The incoming, humid air is drawn in at the bottom and forced to travel upward in a zig-zag fashion over the chemical in the various pans which act as baffles. But in passing from a lower to a higher level the air is forced to travel through the chemical cascades so that there is no possibility of contact loss. The air not only travels *over* the chemical but it also is forced *through* it. The air thus circulated passes into the upper part of the unit where it is drawn through lump chemical by the discharge fan. If it is desired to heat the discharged dry air still more, this is accomplished by passing steam through the tempering coils. When the unit is used for air conditioning purposes the air is discharged back into the room at the same temperature it is brought in on the principle that "it isn't the heat; it's the the humidity" that causes discomfort. If it is desired to refrigerate the air, which isn't recommended for air conditioning because of the probability of causing shock, this can be done by circulating a refrigerant through the tempering coils. When the unit is used in winter for air conditioning it can be arranged so that a certain amount of outside air is drawn in, and, in this case, water takes the place of the hygroscopic chemical mixture, so that air is properly humidified subject to control by an automatic humidistat. Under any condition of operation the unit tends to purify air by absorbing dust, colloids and CO_2 and the activated carbon in the mixture picks up objectionable odors.

(Continued on page 108)



Start the New Year with the

NEW ABBE FACE POWDER PROCESS

With this new Abbe face powder technique you won't have to worry about profits in 1935. This is the fastest and best way to make quality powder.

THE FORMULA: Talc 69 lbs., Zinc Oxide 19 lbs., Zinc Stearate 5 lbs., Chalk 5 lbs. Color and perfume to suit.

THE PROCESS: Roughly stir the color and perfume into the chalk and add to the rest of the batch. Mix for 15 minutes in an **Abbe Mixer**. Then run the batch through an **Abbe Rapid Mill**. This will take 15 minutes per 100 lbs. Finish off the powder in an **Abbe Pebble Mill** for one hour. Then sift through an **Abbe Midget** or **Blutergess Turbine Sifter**. This will take 15 minutes per 100 lbs.

THE RESULT: Superfine face powder made at a rate of 1½ hours per batch. Larger capacities can be obtained by using larger sizes of equipment.

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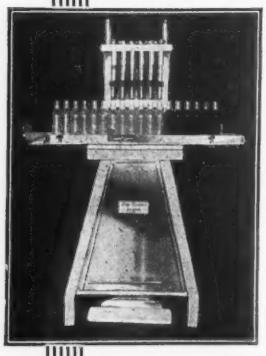
Cut Bottling Costs



Hy-Speed

Semi-Automatic

VACUUM FILLER

for

bottles-cans-jugs

(one dram to gallons)

This revolutionary HY-SPEED filler has many exclusive features for feeding and filling with greater speed at a lower time and labor cost. It can be adjusted quickly for handling bottles, jugs, or cans of any size up to gallons. Fills with hairline accuracy rejecting all imperfect containers. Ask for full details about this most modern up-to-the-minute unit.

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39 West 60th St. New York, N. Y.

Improve your EMULSIONS *and* SUSPENSIONS

EMULSIONS: Cod liver oil, castor oil, hand lotions, liquid creams, emulsified tonics and medicines. Homogenizing improves and stabilizes emulsions of all types.

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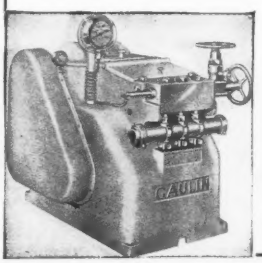
SOLUTIONS: Cough medicines, proprietaries, mouth washes, lotions. Homogenizing secures better distribution and solution of medicaments and perfumes.



The Manton-Gaulin Homogenizer is more effective and less expensive than a colloid mill. Sizes are available from twelve to several hundred gallons per hour. SEND FOR CATALOG.

The Manton-Gaulin Manufacturing Co., Inc.

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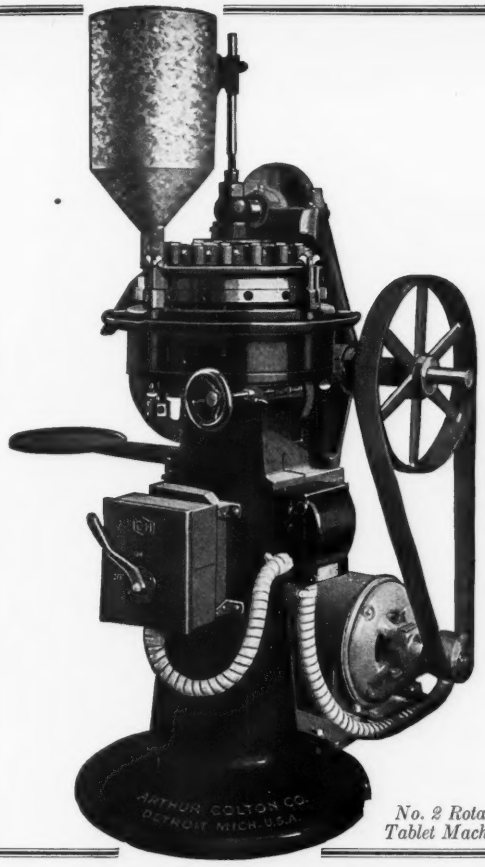

No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

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SUPPOSITORY and LIPSTICK MOLDS

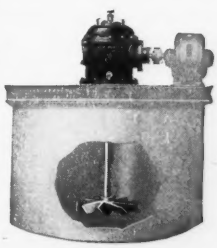
Furnished in special composition white metal or brass in sizes ranging from 36 to 144 according to your requirements.

Presses for rouge and compact cakes.

HIGHEST GRADE MACHINISTS, Inc.

163 W. 22nd Street **New York City**

"NEW ENGLAND" AGITATOR DRIVES



are agitator drives—just that—machines built to drive agitators and to keep on driving them, economically and efficiently.

Ask for Bulletin 341.

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AGITATING EQUIPMENT SPECIALISTS

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Dry Powder Mixers, 100 to 2000 lbs.
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World Improved Ermold and National Labelers
15", 20", 24", 30", 36" Copper Revolving Pans
Stokes and Colton Tube Fillers and Closers
Pony Mixers—8, 15, 20 and 40 gallons
Cream Mixers—Champion, Read, 20 to 80 qt.
Rodgers Tube Fillers, Closers, Clipless Crimpers
Lightning and Rodgers Portable Electric Mixers
30 to 250 gallon New Glass-Lined Tanks
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Ointment Mills—7", 12", 18" diameter
Complete Pill and Tablet Making Machinery
Copper Kettles, Capsule Fillers, Pumps, Filters, etc.

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Agent for George G. Rodgers Co.

183 Varick St. **New York, N. Y.**

Cable Address:—Bristen **Tel. WAlker 5-6892-3-4**

ROSS COLD CREAM and OINTMENT MIXERS

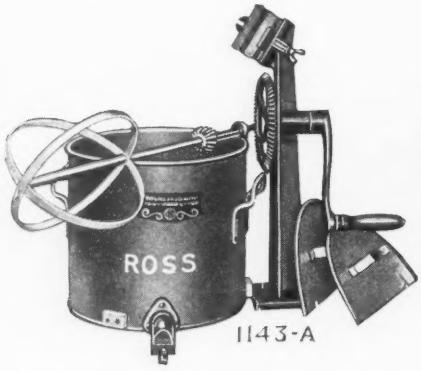
FOR MIXING LIQUIDS, TOOTH PASTE, VANISHING CREAMS, OINTMENTS, ETC.

No. 36-E Spec. 25 gallon Enclosed Rapid Mixer motor driven

With rapid stirrer giving a whirlpool action for mixing liniments and similar liquids.

Tanks and stirrer can be tin coated or made of other non-corrosive metal.

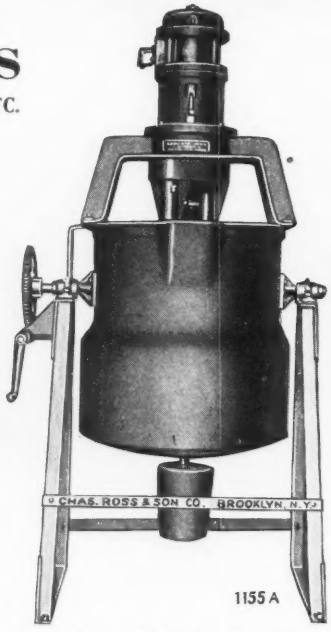
Built in sizes to 2000 gallons.



Ross Special Emulsifying Change Can Mixer No. 36 Size 8 Gallon

A special small hand power operated Change Can Mixer with special stirring device used for thinning liquids or emulsifying.

Cans and stirring device can be coated with non-corrosive Metals or made of Monel Metal.



Ross Special Cold Cream Mixer No. 36 Water Jacketed 50 Gallon Motor Driven

CHARLES ROSS & SON COMPANY

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MODERN BEAUTY CULTURE is intended to meet the requirements of those who desire to become thoroughly conversant with beauty culture, its fundamental theories and expertly skilled in its various practices.

Set forth are the essentials of every practice used in the beauty shop. Includes a survey of the subject in a convenient form in all of its branches.

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THE PHARMACEUTICAL RECIPE BOOK

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Every formula is accurately given in the manner of the National Formulary with working directions for each separate item. The manufacturing chemist will find the book a most useful laboratory adjunct. It is divided into nine great sections and contains 1,623 formulas, as follows:

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THE DRUG AND COSMETIC INDUSTRY
101 W. 31st St., New York, N. Y.

PERFUMERS' SHELF

Making a Lilac

We have often wondered if the average user of specialties fully realizes how difficult is the making of a good bouquet, a good lilac! For lilac the attainment of perfection in developing a true flower characteristic requires considerable time, technique and delicate use of the various ingredients necessary to produce what the user will call a "good seller."

Should we embark on such a procedure, our base would consist of terpineol, amyl cinnamic aldehyde, cinnamic alcohol, hydroxy citronellal, phenylethyl alcohol, phenyl acetic aldehyde, aubepine, ylang ylang, and benzyl acetate. Terpineol is not always necessary to make a good product but is usually used. From this base, various shades or types can be made for example by the use of methyl para cresyl ether and acetophenone in traces. Styrax resin or styrol in small quantities (to produce the characteristic gassy note) and should a heavier type be required, cinnamic aldehyde, eugenol or iso-eugenol are also desirable adjuncts.

Most important in the finished odor is the amount of absolute jasmine to be added. Of course, the cost must now be considered but even in the very cheap products a synthetic jasmine should be used. The absolute, however, develops a flowery note so essential to a fine lilac, and where cost is a secondary consideration a generous quantity should be used.

Phenyl propyl alcohol also develops an interesting note as does the acetate, but the aldehyde is not recommended, phenyl acetic aldehyde being more desirable for this purpose. Last, but not least, is the importance of lasting qualities and fixation, which can well be accomplished by the use of musk ketone. In this connection musk ambrette is not recommended, but musk xylol can be used where a cheaper product is desired.

Several changes can be made in the above recommendations depending on the use for which the lilac scent is intended. For example, if for perfume or toilet water, a slight amount of indol may be used with excellent results. This is prohibitive in powders or creams however, because of discoloration. If for powders, the musk ketone or cinnamyl alcohol should be increased. In creams the addition of cinnamyl acetate together with a small quantity of aldehyde C_{12} laurinic will produce a finer and more flowery effect.

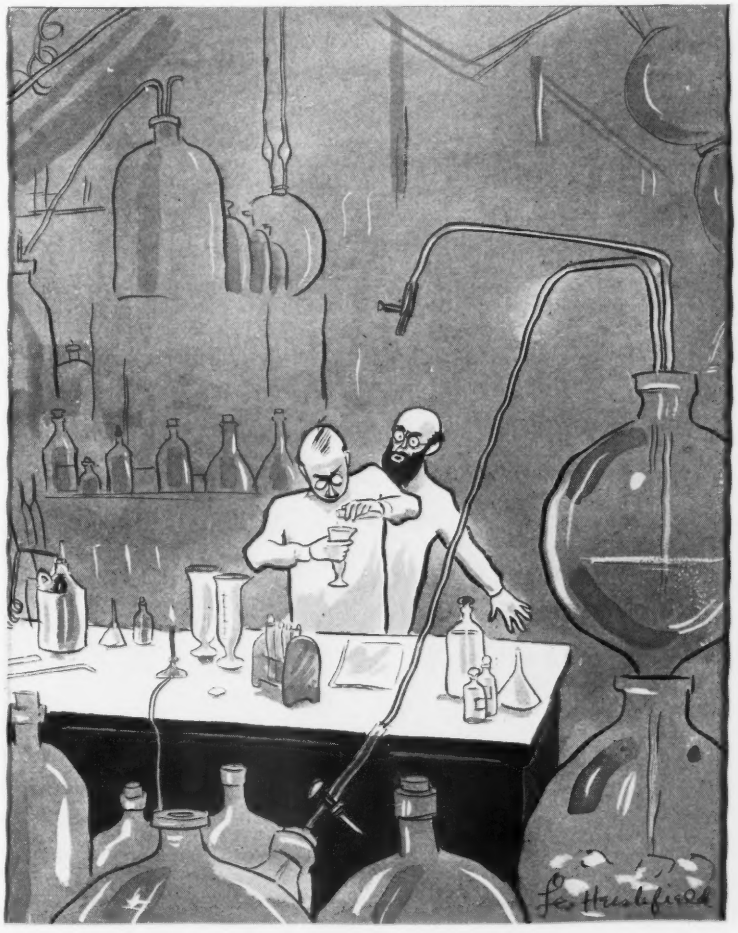
Heliotropene is often used, and blends very well in the scent, but the writer hesitates to recommend this item due to its tendency to smart the skin.

It is understood that the quality of each item used should be thoroughly tested before addition and price should always be a secondary consideration where a fine product is desired.

Vetiverol and Vetiveryl Acetate

Among essential oils Vetiver occupies a very important position in modern perfumery, not only on account of its distinctive odor, but because of its remarkable fixative properties. The most valuable portion of Vetiver oil is represented by the mixture of sesqui-terpene alcohols, known as Vetiverol or Vetivenol, which it contains, and the use of the oil itself may be advantageously replaced by that of the isolated mixture of alcohols.

Where a somewhat fresher note is required the use of the mixture of acetic esters or Vetiveryl acetates is indicated. Its odor is of a somewhat sweeter character than oil of Vetiver. Commercial products differ considerably in odor value, according to the exact method of production and its ester content. Good quality Vetiveryl acetate is a very valuable fixative for use in the same way as Vetiver oil itself. Its odor resembles that of the oil, but is of a fresher character, somewhat suggestive of sandalwood. It is especially valuable in chypre and similar compositions. The odor of Vetiverol or Vetiveryl acetate does not fully develop unless it is compounded and they are best judged by testing a 10% solution in alcohol. One reason for the slight odor of the pure substances is to be found in their very high boiling points. Vetiveryl acetate as well as Vetiverol have valuable fixative properties of almost universal utility, but they are especially serviceable in chypre, rose, violet and sandalwood compositions.



"I've oxidized it, I've chlorinated it, I've hydrogenated it, I've sulfonated it, I've ethylated it, and I've dehydrated it, but still she doesn't like the smell!"

FROM *Acacia*

TO *Jimol*

COMPAGNIE PARENTO, INC.

Announces the Publication of a New Catalog

This book is not merely a price-list but a Manual of Perfumery, covering Essential Oils, Aromatics, Compounds, Isolates, Oleoresins, Specialties, etc., etc.

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THE COMPOUNDERS' CORNER

Lumps in Fat Free Creams

Two types of fat free creams must be distinguished: the first is made without fat of any kind, the second is really a dry cream. In absolutely fat free creams, where neither fatty acids nor their glycerine esters are used, various aluminum, zinc, and sodium stearates are added as dry powders to the mixtures

In the latter type lumps are generally caused by uneven swelling of the emulsifying substance, such as carragheen, tragacanth, gum arabic, gelatin. agar-agar, arrow root, dextrin aluminum hydroxide, etc. and unequal distribution of the powder. The first fault will usually occur when water is added to the substance to be swelled. It should be a general rule never to add liquid to a dry, especially to a powdered, substance, since in this case some of the dry material will remain untouched by the liquid.

Starchy materials, like arrow root and dextrin, should not be mixed with hot water; they should first be swelled in a small amount of cold water, then mixed with a large quantity of boiling water and stirred thoroughly. Constant and uniform stirring is absolutely necessary. Other swelling substances, such as agar-agar, will always form lumps if they are given a chance to adhere to the bottom and sides of the vessel.

Lumps will also form if the powder is not carefully added to the mixture. Powder should first be mixed in a mortar with a small amount of glycerin, then with a small amount of the remaining ingredients and then added to the rest of the mixture in small portions, through a sieve. The finished cream should also be passed through a sieve or cloth.

The preparation of so-called saponification creams (stearate creams) offers still other possibilities for the formation of lumps. Non-uniform saponification, temperature fluctuation, and insufficient stirring cause lumps of varying consistency. The chief cause of imperfections in the finished cream lies in the impatience of the processor, who tries to shorten the time of manufacture. No matter how good the apparatus or how simple the cream itself, lumps will be formed if the cream at the walls of the vessel is cold enough to solidify while the center of the mixture is still liquid. When this occurs the cream must be re-melted and constantly and strongly stirred.

When a day cream occludes air its surface will begin to dry. Since fat creams contain water drops disseminated throughout the mass, and each droplet is coated with a film of fat, these are more stable to evaporation than fat-free and dry creams.

Addition of glycerin is very useful for protection against drying. If only the technical appearance and stability of the cream are being considered and less attention is being paid to its use, lumps and drying of the surface can be prevented by the use of hygroscopic salts. Since a number of hygroscopic substances are not absolutely harmless to the skin, their use is not recommended.

When cream is contained in a storage vessel and part of it is removed, the surface of the cream becomes dry, so that this surface must never be mixed with the rest of the cream.

Aliphatic Alcohols in Shaving Creams

Recently the addition of certain products such as cetyl alcohol or sulfonated lauryl alcohol has been suggested to improve the properties of shaving creams. Welwart has studied this subject and has shown that the addition of as much as 8% of these substances to the soaps does not modify their quality, particularly if the addition is made to a commercial product which contains noticeable amounts of sodium sulfate.

Only when the proportion of sulfonated alcohol is about 10% is the efficicacy of the soap increased, especially when using hard water. Experience has proven, however, that the same result can be obtained by the addition of much cheaper substances.

Hair Fixatives

Fixative jellies for the hair may be prepared by mixing tragacanth (5 parts) with alcohol (5 to 10 parts) and glycerin (5 to 10 parts), coloring and perfuming the mixture and then adding, all at once, 75 to 85 parts of water. Alternatively, the jellies may be made without the use of alcohol, but the process is more troublesome, and the use of a mechanical mortar is recommended, in order to get a perfect mixture of the glycerin and the gum. The addition of a preservative is desirable, especially if the jelly does not contain alcohol. Sodium fluoride and esters of para-hydroxy-benzoic acid are more efficient. The use of perfumes containing clove oil or eugenol are also recommended.

Deodorants

The characteristics of a good deodorant are fourfold. It must be (a) a good antiseptic to destroy bacteria which cause decomposition of perspiration, (b) a skin stimulant to promote a healthy flow of blood through the surface capillaries, (c) an astringent to close the pores, (d) a non-irritant to the delicate skin tissues. A number of substances, notably the salts of aluminum, answer more or less closely to these requirements.

The use of perfumes in this connection is very limited, since they cannot effectively mask the skin emanations; indeed, they may often make matters worse, because the fat content of the latter acts the same way as a perfume fixative, preventing the escape of malodorous compounds which might otherwise do so more readily. Exceptions to this rule are eau de Cologne, because of its alcohol, which is both antiseptic and stimulating, and lavender, which has also pronounced bactericidal properties. Other perfumes are best left alone by those prone to excessive perspiration, unless the skin has previously received suitable treatment.

The simplest method of inhibiting perspiration is by the use of an astringent which acts partly by coagulating the proteins in the surface of the epidermis and partly on the nerve reflexes by closing the pores, thus achieving the desired effect. One of the most effective and best known astringents is common alum, and a useful solution can be made up by mixing one part of water with three of glycerin, and adding rose-water to one hundred parts. Concentrated solutions should not be used, as they are harmful, causing redness of the skin. It is very often advisable to combine an antiseptic with the astringent, thus destroying the bacteria in addition to reducing the amount of perspiration locally. Formaldehyde is an excellent disinfectant and has the advantage of not injuring colored fabrics. It is often made up in dilute aqueous solution with an astringent, and may be used without ill-effect on the most sensitive skin, however, owing to the volatility of the formaldehyde, the effect is not very lasting.

In recent years much work has been done on the astringent action of alum, and the efficacy of the sulphate of aluminum has led to the investigation of other salts of this metal as astringents and deodorants with considerable success. These salts are by far the most useful for such purposes, and under various trade names the chloride, acetate, tannate, gallate, naphthol sulphonate, borotartrate and many others, have been put on the market for toilet and medical purposes. Both the chloride and acetate of aluminum are highly astringent and antiseptic, exceeding actually the antiseptic strength of boric acid. The advantages of combining the two properties in one substance are very great and, as both of these salts are

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comparatively cheap and not irritating when used in correct concentration, they are most frequently employed.

Salicylic acid is one of the most useful ingredients in deodorant creams, and a simple one can be prepared by heating the acid and mixing with eight times its weight of castor oil heated to the same temperature

Soap Shampoos

A perfectly neutral soap serves just as well for shampooing as an alkaline soap: the presence of free alkali is not necessary for removing oily substances. Saponification of the natural oils should not be considered as this will not take place with the small amount of free alkali present under the conditions of use; on the other hand, the soap itself should emulsify all the materials it is desirable to remove. In cases of necessity, propyl alcohol may serve to remove very adherent particles and to clean neglected hair, but in the great majority of instances a 40% solution of a soft white soap in water will give a product containing about 16 to 20% of completely saponified fats without excess alkali and perfectly suitable for the intended purpose.

The absolutely white soap obtained by the saponification of coconut oil has the disadvantage of feeling "sharp" no matter how pure the oil used in its manufacture. It gives the sensation of a too alkaline soap even when it is perfectly neutral. Palm oil soaps are used instead, although they are not quite so "water-white," because they are mild, never irritating and perfectly soluble in ordinary water. Three to four hundred grams of soft palm oil soap in a liter of water give a perfectly satisfactory shampoo requiring only perfume and no addition of any alkali. With present prices, there is little appreciable difference in cost in using an odorless, soft white soap rather than a dark colored technical product.

A palm oil soap shampoo gives a copious lather; present fashion in consumption requires soap which lather little. These shampoo products may be made by adding to the above soap solution a certain amount of sulfonated castor oil, which does not lather; the degree of lathering may thus be modified at will. Moreover, ordinary terpeneless essences for shampoos are perfectly soluble in sulfonated castor oils and may be added in almost any desired amount. Pine and Norwegian tar are also soluble in these mixtures.

Chemicals in Skin Cosmetics

Octadecyl alcohol (stearyl alcohol) $C_{18}H_{37}OH$ is contained in the ester of spermaceti and is also prepared synthetically from stearin. It is often used in skin creams in which the alcohol has an outstanding protective effect for the skin.

Optochin (ethylhydrocuprein) is a white powder insoluble in water, soluble in alcohol, ether, chloroform, not oils, and fats. The hydrochloride easily dissolves on warming in two parts of water or five parts of alcohol The solution is absolutely stable. Optochin is a very strong antiseptic with special efficiency against penumococcus. Its toxicity is about the same as that of quinine. It also has a strong anaesthetic effect and can be used in cosmetics as an antiseptic.

Oxynaphthoic acid ($HOC_{10}H_6CO_2H$). The alpha compound is a yellow white, often reddish lumpy powder which causes sneezing. It is almost insoluble in water, but somewhat more soluble in solutions of bicarbonates, alcohol, benzine, fatty and ethereal oils. It is a very effective antiseptic and antizymotic. The acid is poisonous when taken internally. It is used for healing minor wounds. In a 10% salve it is used for the treatment of prurigo, and, with soap, for treating scabies.

Oxycholesterin. According to Lifschutz, oxycholesterin is prepared by the mild oxidation of cholesterin with benzoyl peroxide in solvents boiling under 100° C. (German patent 318223). Dissolve 2 grams cholesterin in 100 CC. of chloroform and boil for 8-10 hours with 2 grams of benzoyl peroxide. The reaction requires only 2-3 hours in carbon tetrachloride. The yield is 90-95%. Technically pure oxycholesterin is a brown, odorless mass. Oxy- and metacholesterin give colloidal solutions which pass through membranes which do not permit cholesterin to pass. Oxidation products of cholesterin have much stronger emulsifying power than cholesterin.

Revson Offers Contrasol

R. F. Revson Co., specializing in chemicals for the cosmetic industry announce the production of Contrasol. Contrasol is a pure organic compound, soluble in oils. It does not irritate the skin and may be used in quantities of 5 to 10% to act as a filter for the blistering rays of the sun. These blistering rays comprise wave lengths of 2900 to 3300 Angstrom units. It does however permit the passage of those rays which merely tan but do not burn the skin. Thus it is an ideal material for inclusion in suntan preparations, and may be employed not only in liquids but creams as well. It is very reasonable in price.

Tragacanth Mucilage

Mucilage of tragacanth made from whole gum has a much higher viscosity than that made from powdered gum, and, if not heated, increases considerably in viscosity on keeping. There does not appear to be any advantage in the adoption of any particular method of preparation when the mucilage is to be diluted and used for its power of retaining an insoluble powder in suspension. Mucilage made with 7.5% of glycerine when diluted retains its suspending power on keeping to a greater extent than mucilage made by any other method.

Hair-Waving Lotions

Alkaline lotions for soaking hair rolled on curling pins are generally 2 or 3° Be. ammonia solutions. These lotions sometimes redden and oxidize the hair; as protection from this phenomenon, a little soluble castor oil is sometimes added to the solution, or 5 g. of borax to a liter of the ammoniacal solution or a mixture of borax to a liter of the ammoniacal solution or a mixture of borax and sodium hyposulfite.

Solutions of ammonium carbonate have also been suggested: the substance can be sold as a powder in small individual packages to be dissolved in water when needed. This method gives a more constant proportion of ammonia than the liquor, which evaporates slowly.

Fouquet has suggested the following formulas: ammonia (22°) 50 cc., rose water 1 liter, desired perfume 1 to 2.5 cc. and glycerine 25 g. Another formula is distilled water 1 liter, borax 10 g., sodium bicarbonate 50 g., glycerine 50 g. and 1 to 2.5 g. of perfume.

Cerbelaud indicates that the concentration of alkali used is almost always too great and should not exceed 10 g. of ammonia per liter or 5 g. of anhydrous sodium carbonate or 10 g. of hydrated sodium carbonate or 20 g. of sodium bicarbonate or borax.

Perfumes which are discolored by alkalies should not be used in these lotions: these include indol and vanillin which give a brick-red color and nitrated musks or cinnamates. Natural essential oils are preferable.

A recommended lotion for use with electrical curling machines is the following: anhydrous sodium carbonate 4 g., ammonium carbonate 1 g., powdered rosin 1 g., diethylene glycol 5 g., alcohol 200 g. and distilled water to make 1 liter. Diethylene glycol promotes solution of the rosin and oils without coating the hair as does glycerine. The following lotion is also sold: powdered rosin 5 g., alcohol (90%) 420 g., caustic potash 2 g., ammonia (d 0.925) 5 g., rose water and perfume 100 g. and distilled water to make 1 liter. This liquid can be used for electric waving or in waving by means of curling pins or rubber buckles.

In the latter case, the hair is soaked, the lotion being carefully kept out of the eyes, and then rolled on pins or buckles. Leave for 3 or 4 hours or overnight.

Gum tragacanth mucilages are also used for hand-waving. Mix 20 g. of the powdered gum with 50 g. of alcohol and add 1 liter of perfumed water. Moisten the hair slightly with this mixture before setting; if too much of the mixture is used the hair will appear irridescent.

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ADVANCING THERAPY

Vitamin A and Colds

In the December 29 issue of the *Journal of the A.M.A.* Vitamin A again is subjected to scrutiny regarding its effectiveness in preventing colds and is found wanting. Drs. Gerald S. Shibley and Tom D. Spies, of Western Reserve University, experimented on adult humans by feeding them halibut liver oil in large single weekly doses. This method of dosage was proven to be as effective as daily doses by experiments made upon rats. The conclusions reported are: (1) Vitamin A has no effect upon the incidence or severity of colds; (2) Suggestive, but not conclusive evidence indicates that Vitamin A shortens colds slightly in winter months.

Of additional interest is the fact that the two control groups were fed plain maize oil, and Viosterol respectively. No tests were made to see how much of the Vitamin A in the halibut liver oil was absorbed by the subjects. No other form of vitamin A than halibut liver oil was administered.

Diothane Anesthetic

Diothane, the new anesthetic of The Wm. S. Merrell Co., is receiving wide favorable publicity. This product is piperidinopropanediol di-phenylurethane hydrochloride, and was perfected by Dr. T. H. Rider, head of the Merrell scientific staff. Dr. Rider started work on the product nine years ago while he was a student at Yale. The product is a new type of anesthetic in that it is used for the elimination of pain following operations, being injected in the case of an appendectomy before the incision is closed. It is particularly suited for use in uroloby and tonsilectomy, in which the throat is sprayed with a one per cent solution. Effects are retained for four or five days without injuring the tissues.

New Abbott Products

Abbott Laboratories are marketing two new products, Anthralin Ointment, and Thioglycerol. Anthralin Ointment, obtainable in ¼% and ½% concentrations, is indicated for the treatment of psoriasis. It is said to be less toxic and less likely to cause reactions than chrysarobin. It has the further advantage of there being no danger of conjunctivitis when used in the concentrations supplied. It produces little discoloration and less staining of the skin and linens than chrysarobin. Chemically, Anthralin is di-hydroxy-anthrol. It is packed in two-ounce tubes.

The other Abbott product, Thioglycerol, is indicated for the treatment of sluggish wounds, varicose ulcers, bed sores, skin grafting, etc. It is based on the fact that during recent years it has been noted that compounds containing the sulphydryl group have a marked effect in the stimulation of epitherial proliferation and granulation. Thioglycerol is said to possess many advantages over other compounds of this group, being relatively stable and practically odorless. When dissolved in glycerin it need be applied only once daily. It is packaged in boxes of six 5cc. bottles, and in 50cc. bottles.

Vitamin A Potency

One bottler of cod liver oil recently complained to us about the higher and higher statements of vitamin A potency which are constantly appearing on the labels in the trade. "What is the sense of it all?" he asked, "it only means exhausting the rate further before you give him the test oil." And thereby hangs a tale which we expect to tell in our February issue. Vitamin A assay, even according to the revised U.S.P. method, is so full of holes that a smart manipulator can get almost any potency he desires to show out of the same barrel of cod liver oil. This means that either the holes in the rat method of assay must be plugged up or either the antimony trichloride colorimetric method or the spectroscopic method must be used. And the advances being made in the spectroscopic method are startling to say the least,—but no more of that just now.

Winthrop's New One

And have you noticed that Winthrop has again announced a new product, this time it is Sodium Formaldehyde Sulphoxylate, a stable and sterile preparation for mercurial poisoning. It is a powerful reducing agent, which when mixed with a solution of mercuric chloride in a test-tube, immediately precipitates mercurous compounds. In use, the stomach is thoroughly washed out with a five per cent solution of the product, and about 200 cc. of this solution is left in the stomach. Shortly after the lavage, 10 grams of the product dissolved in 100 to 200 cc. of water, is injected intravenously.

A New Inhalant

Smith, Kline & French Laboratories are offering Benzedrine (benzyl methyl carbinamine) as an inhalent for use in the treatment of common colds. Advertising and literature show striking illustrations of

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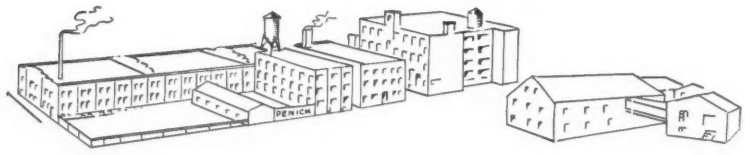

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the shrinkage of engorged nasal mucosa. The product is said to be a vasomotor constrictor with a potency equal to or greater than that of epherine for use in head colds, sinusitis, vasomotor rhinitis, hay fever, and asthma.

A Squill Derivative

A new product derived from squill is offered by the Grisard Laboratories under the name of Scillonin. The product is a mixture of two of the active ingredients of squill, scilla maritima and urginea aritima. It is said to belong to that group of products which have a peculiar action on the cardiac muscle. The usefulness of the product is said to have been proven in decompensations, myocardial insufficiencies, and cardiovascular-renal disorders, as well as in secondary cardiac embarrassments.

Cold Prescription

Schering & Glatz are offering a new preparation for shortening the duration of colds. In literature to the physician they suggest that the product contains just the ingredients that the physician's prescription would contain: 40 grains of sodium citrate, 16 grains of sodium salicylate, 8 grains of potassium guaiacol sulphonate, 24 grains of Urotorpin, and 1.5 grains of extract of cascara—all these in each fluid ounce. The product is named Prolixal.

New Kidney Antiseptic

A new water-soluble dye of high bacteriostatic power and low toxicity for oral use is offered under the name Picochrome by the Picochrome Corporation, New York. Picochrome is ortho cresyl azo diamino picoline hydrochloride containing 20 per cent tetrabromo ortho cresol. The product is excreted by the urinary tract, partly by the glandular tissue. It colors urine yellow to orange. It is antiseptic against cocci, as well as particularly against B coli type micro organisms. It acts in acid as well as in alkaline urine. It has an extremely low toxicity. It is effective against infections to the kidney, bladder, urethra, and adnexa, such as pyelitis, pyelonephritis, cystitis, cystopyelitis, gonnorrhoea, and prostatitis.

Menorol

Menorol is the name given to a new product of the Menorol Company, of Cincinnati, and offered by Adolphe Hurst & Co., New York. The generic term is parasulphamidopyrine, and the product is said to be a mixture of parasulphamido benzoic acid, and dimethylamido phenyl dimethylpyrazolon. The specific ingredient is the parasulphamido benzoic acid which is produced 99½ per cent pure for use in the product. The product is a tasteless white crystalline powder. It is indicated in the treatment of dysmenorrhea and associated disturbances, relieving the attendent spasmodic conditions, persistent pains and anguish of mind.

New Medicines Abroad

Syntropan. Formula: Diethylaminodimethylopropylium-phenyloxypropionico-phosphoricum 20 mg., starch, talc, sugar. Box of 20 tablets. Hoffman-La Roche.

Cera Nerve Tonic. Formula: Strychnini sulfuric. 1 mg., Phosphorus amorph. 0.5 mg., Natr. hypophosphoros., Calc. hypophosphoros., Chinin. hypophosphoros., mangani lactic., Ether, Saccharum, Aqua q.s. pro cochlear. cafeti.

Haylum salve. Formula: Adeps suillus, Sapo kalinus, Petroleum, Hydrargyr. Ammon. chlorid. 5 gr. pro cent., Origani bulg. flor., Orpini flor., Spinaciae fol. macerata aquosa.

Cebion Tablets. Packages of 20 tablets. Each contains 0.01 g. of vitamin (pure ascorbic acid) E. Merck, Darmstadt.

Jod-Tetragnost-Powder. The sodium compound of tetraiodophenolphthaleine, in 4 or 6 g. packages. Same manufacturer.

Solucamphor Debalande Ampoules. Each ampoule contains 0.14 g. of diethylenediaminecamphor sulfonate per cc. Packages contain 6 ampoules, 1, 2, 5 cc. Laborat. M. Debalande Courbevoie-Seine.

Bionervin. Package of 150 g. The mixture contains Syr. hypophosphor.comp. Egger 90% and Extr. Kolae fluid 10%. Eggochemia, Wien XIX.

Agrypnal Ampoules, 20%, 30%. Ampoules contain 20 or 30% of phenylethylbarbituric acid, acetamide, propuonamide, betaine and distilled water. Ten ampoules to a package, 1 cc. Same manufacturer.

Rhodine Tablets. These consist of 0.50 g. of acetylsalicylic acid; packages contain 20 tablets. Societe Parisienne d'Expansion Chimique Specia, Paris.

Pankrin-Richter Tablets. Each contains 0.25 g. Pankrin (1:8000). Twenty-five or 50 tablets to the package. Chem. Fabr. Gedeon Richter, A.G., Budapest.

Quisa-pect-Drops. Extract of Quillaja rind with sodium benzoate and thyme oil. Ten cc. packages. Chem. Fabrik F. J. Kwizda, Korneuburg.

Uropur-Injection. Each 5 cc. ampoule contains 2 g. hexamethylenetetramine, 0.50 g. sodium salicylate, 0.20 g. caffeine sodium benzoate and distilled water to make 5 cc. Five ampoules to a package. Same manufacturer.

Dr. Ertl's Gyefual. This mixture is an extract of Hb Veronicae, Rad. Levistici, Hb Marrubii, Hb. Galeopsidis, Hb Mayoranae, Flor. Acaciae, Fruct. Sennae. Packages of 180 g. Apotheke F. Mantler, Wien XXI.

Anginal Tablets, contain pyocyaneoprotein sec. Prof. Dr. Honl, menthol and thyme oil. Packages of 20 tablets. Medica, Prag II.

Procythol forte Ampoules. Liver extract for injection. One ampoule is equivalent to 5 kg. of fresh liver. Packages of 5 ampoules from 2 to 20 cc. Sanabo-Chinoin G.m.b.H., Wien I.

Coderit Tablets. Tablets contain 0.02 g. codeine hydrochloride, 0.02 g. Epherit (chloride of the synthetic racemic ephedrin), 0.0005 g. total alkaloid of ipecacuanha root. Packages of 10 tablets. Same manufacturer.

Septosan Tea. Trypaflavin 1., Rad. Liquir. sc., Fol. Salviae sciss., Fol. Malvae, Rad. Pimpinellae, Fol. Althaeae ad 1000. Fifty gram packages. St. Anna-Spotheke, Ph. Mr. Daudt, Wien XIII.

Jod-Arterial-Tablets. Contain 0.25 g. theobromine, 0.015 g. phenylethylbarbituric acid, 0.10 g. potassium iodate; 20 to a package. Apotheke Z. Schutzengal Dr L. Wittner, Wien XVIII.

Photodyn. Ampoules contain 0.2% hematoporphyrin solution in packages of the following make-up: 3—1 cc.; 10—1 cc.; 3—2 cc.; 10—2 cc. The drops consist of a 0.50% hydrochloric acid solution of hematoporphyrin. Packages contain 20 or 100 cc. Nordmarkwerke, G.m b.H., Hamburg.

Kola granule Astier. This is a 10% kola nut extract with sugar. One hundred grams to a package. Labor. Dr. Astier, Paris.

Thiosept. Hemorrhoid salve consists of 25% zinc oxide, 1% thiosept oil, 2% anesthesan, 5% bismuth subgallate, adeps lanae, boric acid, vaseline. Package contains 30 g. Hemorrhoid suppositories contain 5% thiosept oil, 4% anesthesan, 6% bismuth subgallate and 01. Cacao. Five and 10 suppositories to a package. Pharm. u. Drogenhandels, G.m.b.H. Wien VI.

Neo-Olesal Ampoules. Each ampoule contains 0.20 g. bismuth dimethylenehexahydrobenzoate and olive oil to 2 cc. Packages of 10 ampoules. I. G. Farbenindustrie A.G. Leverkusen.

Provital. Formula: Magnes. chlorid., mangan. chlorid., acid. phosphoric. dil., strychni tinctur., 200 mg. pro cochlear cafeti, heparat. extract., liensis extr., renis extr., sirup. simpl., glycerine, water, cacao essent., aurant. cortic. ess., citriess. vanillae fruct. tinct. Dr. Debat.

Eczematex. Formula. crude pyroligneous acid, oleum cadini, pix liquida, methyl salicylate, menthol, camphor, water. For external use.

Carbolax, for poisonings, colica mucosa, obstipatio habitualis, consists of charcoal with senna extract. Chemical Works of Gedeo Richter Ltd., Budapest and London.

Endothyrin is a standardized thyroid containing double the prescribed quantity of iodine. It is used in hypothyroicism, myxoedema, etc. In bottles containing 50 or 100 ½ grain tablets. Endocrines, Ltd., London.

Cynhepatil. Formula: Extract of artichoke leaves 100 mg., stabilized liver powder 100 mg., purified meat peptone 100 mg., Talc, gum arabic, corn starch, glutin, gum lac, black glycine Klotz, naphthol yellow Blayn. Bottles of 60 tablets. Lab. Benderitter.

READERS'

Inquiries must be addressed department on the letterhead of firms. Inquiries from private

LUMPY SHAVE

Noting your practical compounding helps, we venture to ask in regard to a brushless shave cream. We have a satisfactory cream except for one small thing: small lumps form after standing for a time. Can you tell us how to eliminate this trouble. The body of the cream is stearic acid with borax. We appreciate your assistance. Waverly, Ia.

Reasons for such a cream cannot be given without an examination of the cream and an inspection of a quantitative formula. From your description however we suspect that your formula is unbalanced. We think that you may have used an excessive quantity of borax. We also think that potassium hydroxide or triethanolamine would give you a smoother product.

VEGETABLE COSMETICS

Could you inform us as to what percentage of manufacturers use a preservative in skin cream? What percentage make their creams with a vegetable oil base? When a vegetable oil is used what is done to prevent rancidity? Is there any evidence to justify the use of vegetable oils on a skin over mineral oils? Newark.

Preservatives are used in skin creams whenever a vegetable or animal substance is included in the formula mainly to prevent mold growths. Very few manufacturers use vegetable oils as a base for cream. When such oils are used an anti-oxidant must be included to prevent oxidation, which, causes rancidity. Rancidity, contrary to a general impression, is not caused by bacterial decomposition. The answer to your last question is that no convincing, scientific work has been done to demonstrate that vegetable oils are superior to mineral oils. We rather think not.

GREASELESS COLD CREAMS

We would appreciate your aid in preparing a greaseless cold cream which we wish to sell in collapsible tubes. One that could also be used after shaving. Baltimore.

There is no such cream. A true cold cream must contain from 30 to 50% of oil and therefore it cannot be greaseless. Greaseless creams are invariably vanishing creams containing a very high percentage of water and are made with glyceryl mono stearate or by combining stearic acid and alkalis.

FORMULAS FOR SALE

One of our subscribers would like to sell a liquid styptic which is non-staining, antiseptic, inexpensive and will stop bleeding instantly. By diluting it with water it makes an excellent after shave or astringent lotion and hence could be used as a two purpose item. Interested parties will be put into touch.

We also have a number of subscribers who have guaranteed permanent wave solutions for sale. Sing out if you want one.

CUTICLE REMOVER

We note where you answer reader's questions with regard to their formulae and thought perhaps you might be able to help us with our cuticle remover. On aging, after standing on the customers shelves for a time, some of it becomes a little milky and has a great many white flakes in it thereby becoming unsalable. Can you tell us what our trouble is and why some bottles stay clear and others do not? Dallas.

It is somewhat difficult to assign a definite reason for such a condition. In your formula you have three variables: water, glycerin and sodium carbonate. You must also consider the glass itself. Our first reaction is that your alkali solution is saponifying fatty impurities in the glycerin. Our second is that you may not be using distilled water, and inasmuch as you are located in a hard water area, you are getting a precipitation. Our third is, though this is unlikely, that your alkali may be impure and our final one is that your alkali solution may be attacking the glass. The latter, however, would give you only the flakes and not the milkiness. Make up one sample with distilled water. Another without any glycerine. Put both into an oven at 110 F. for a week. If the first turns milky then check the purity of your glycerin. If the second turns milky too then you'll also have to check your alkali. Our guess is that the first sample will tell you the story. If you get a negative result in both cases make up another sample using regular water. If this goes milky then your water is causing the trouble.

LAXATIVE BREAD

We are thinking of marketing a bread which will have some substance in it to promote regularity of the bowels. It will have to be mildly laxative but please bear in mind that we are planning to put out a regular white loaf without taking it out of the competitive class so therefore the cost of any ingredient is a factor. Your advice in this connection will be much appreciated. Pittsburgh.

We were a little breathless after we read your letter and we've come to the conclusion that the grocery chains will ruin us yet. What with laxative bread and aphrodisiac butter and salt peter coffee we'd be in a hell of a mess. Of course the idea of drugs in food is not particularly new. We remember that we used to be fed salt peter in our coffee back in our army days. (At least that's what we used to blame. Maybe it wasn't the coffee.) And our old man once bragged about how he overcame a successful rival by putting a bit of jalap into whiskey for the aforesaid rival before he called upon the young lady who turned the O. M. down. According to Pop the results achieved were both scientific and artistic. But then Pop was always bragging and, we suspect, a bit of a liar when he recounted his youthful conquests. So you don't have to take this evidence as to whether or not your laxative loaf will work. We think it will. But, brother, if you did put out such a loaf, the A. M. A., the F. T. C. the N. R. A. and maybe even the W. C. T. U. would crack down on you P. D. Q. and make you eat the loaves yourself. Then we'd have the parable of the loaves and the wishes. On the other hand you might put a little white mineral oil into the dough and sell your loaf as one which will not promote constipation.

ABRASIVE PASTE

We are making a paste containing an abrasive substance which soon wears out our mixing machine. Our present equipment consists of a kettle with a two-way agitator but this type of kettle is quite expensive, though, aside from excessive wear, it gives us a very satisfactory product. We thought that possibly we could use a homogenizer by running a stream containing the solids in oil in through one side and water at the proper temperature in at the other. It will be appreciated if you can advise us how to solve this problem and also if you will recommend the equipment in which to do it. Milwaukee.

This is not a homogenizer job. Although, if the paste is light enough, you might be able to homogenize it, the abrasive character of your paste, since it is harsh enough to wear out a slow moving kettle-mixer, would cut homogenizer valves to pieces in a very short time. Anyway you haven't enough production to set up an elaborate, continuous method. If we were doing it, we would give the batch a short preliminary mix in your present type of mixer and then we would finish off in a buhr stone mill. By preliminary mixing for a short time only you can cut down the wear on your mixer to such an extent that it will no longer be a factor. The buhr stone mill will not be affected by the abrasive substance to a perceptible extent. But be sure to specify *buhr stone* as many

QUESTIONS

individuals cannot be considered. This service is limited to the trade only.

standard stone mills are equipped with aesopus stone which is a good deal softer than the former. Such a procedure will give you a very fine product at sufficient speed. On the other hand you could get a mass mixer made of some hard alloy such as stellite. But we think the first method least expensive.

CALAMINE LOTION

We wish to develop a calamine lotion which will not separate after milling, and which avoids the dryness usually associated with the use of this lotion on the skin. The addition of fixed oils, or saponifications of fixed oils with or without stearic acid, seems gradually to develop zinc soaps with subsequent gelatinizing of the product. Have you any experience with any of the sulphonated oils or sulphonated lauryl alcohol, with or without a fixed oil like sweet almond oil, with this medication? We presume that separation might be prevented in a straight calamine lotion by the use of quince seed jelly with a preservative? We will appreciate any suggestions. Brantford, Ont.

To make a calamine lotion which will not separate, you may use either a mucilage base as you suggest or possibly a mineral oil base and make an emulsion with appropriate emulsifying agents. On second thought, however, the first method seems best because we doubt the possibility of making a stable emulsion. We are virtually certain it wouldn't stay put. If you were to make a mucilage-base suspension we recommend homogenizing it. We don't see that either sulphonated oil or sulphonated lauryl alcohol would be of any value in such a preparation.

COUGH SYRUP FLAVOR

We wish to flavor a cough syrup with black currant syrup but we can't locate a source of supply for the dried black currants. Can you give us any help in reference to this matter? Richmond.

If the suppliers of crude drugs who advertise regularly in this paper haven't got the item, you may as well give up the notion of making your own extract. In lieu of this we suggest an artificial flavor which is ordinarily used in the confectionery trade for hard candy and which is obtainable from any of the flavor houses.

MUSCLE OIL

What can be added to muscle oil to make it more penetrating? Detroit.

Castor oil, lanolin, cetyl alcohol.

KINK REMOVER

What is the composition of solutions for removing the kink and wave left by old permanent waves before a new wave is given? Orlando, Florida.

We don't know. We've heard of a preparation of this kind but it is so harsh that it is not used much. Our impression is that new permanents are given without removing the remains of the last.

SIGNING OFF

This department serves notice that from now on it will chuck all inquiries about permanent wave solutions into the can. We're going to stick to consumer products such as bust developers, in which there is much interest, according to some of the letters the customers have sent us.

BATH SALTS

What kind of package would you recommend for bath salts. Would glass be all right or would you suggest a cellophane package. We must consider the moisture angle. Kokomo.

We believe glass is more generally used for bath salts than any other type of container. A glass package is transparent, moisture proof and air tight.

VACUUM VALVES

We have just installed a large vacuum line which has a three way valve to enable us to operate one or two stills as required. But for reasons we cannot fathom we have not been able to get the valve tight enough so that either of the stills will hold vacuum. Our vacuum loss is four inches per hour. Also will you tell us what vacuum loss should be in a tight system? New York.

Inasmuch as you haven't told us what type of valve you are using, we shall have to answer your question in generalities. Vacuum can be held in a large line by means of a two or three way angle cock according to your requirements. If you use an angle cock be sure to get one with a worm gear turning device because these large cocks do not turn very easily. Also there is on the market a large lubricated gate valve which is said to be vacuum tight, but as we haven't had first hand experience with it we can't swear that claims made for it are true. A tight vacuum system should not lose more than an inch per hour. We have seen systems which lost only a half inch per hour but these are very rare.

AIR AGITATION

We have had quite some difficulty with one of our products which is a suspension. The solid matter settles out very rapidly in the supply tanks of our volumetric fillers. These tanks are very small and although we maintain a constant head on them we haven't been able to solve this problem because there isn't any apparent way of building an agitator into the tanks. If you give us some help in this case we shall be very much indebted to you. Boston.

If your product doesn't oxidize readily, why not try agitating it by means of air? Take a small pipe and perforate it with the holes facing downward. Place this pipe into tank of your filling machine in such a way that it rests on the bottom. Then connect it up with a small air pump. This will give you plenty of agitation no matter how heavy your suspension may be. Another way is to connect up a small auxiliary tank to the tank of your filler and then rig up a small pump so that the product will be continuously recirculated from one tank to the other at high velocity. Using such a method you can keep the stuff fairly boiling.

MOTOR OVERLOAD

In our factory we have trouble almost continually with motors on very large ball mills that we use in milling various light drug extracts. We used to blow out fuses regularly. Then we put in overload relays and now we are having trouble with the motors themselves. What puzzles us is that when we call in an electrician to check the powder consumption with an ammeter, we find that the drive requires a good deal less power than the rated capacity of our motors. Can you give us a hint as to how this condition might be me? Philadelphia.

Our assumption is that you have direct connected drives. Your troubles are all in connection with starting the mills. It is evident that your motors are not big enough or of the right type to give you the power required to overcome starting inertia. Mills of this character require from 30 to 50 per cent more power to start them than they need to keep them going. It is customary in installations of this kind to use three speed starting boxes so that the heavy load is not suddenly thrown on the motor. In other cases slip ring or high torque motors are used. These are designed to withstand very high overloads. If you have room for it you could use a jack shaft and cone pulley arrangement with your present motor so that the speed of the mill could be very gradually increased. If you check your motors with an ammeter when they are starting you will find a vast difference in amperage over when the mills are running.

Pelletier, Co-discoverer of Quinine

THERE is a tradition that the Indians of Peru were acquainted with the curative properties of Cinchona Bark, the story being that an Indian was cured of an ague after drinking water in which Cinchona trees had fallen, owing to an earthquake.

The Countess of Chinchon, who had been a famous beauty at the Court of Philip III, was seized with tertian fever while residing in Lima in the year 1638. The administration of Peruvian Bark cured the distinguished patient. The news of the cure was mainly responsible for the introduction of Peruvian Bark to Europe.

In 1820, Pelletier and Caventou isolated Quinine from the Bark.

Today practically all of the Bark is obtained from cultivated trees grown in Java.

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NYQ

RAW MATERIAL MARKETS

Edited by Harry G. Kelbly

GUM ARABIC*

This Common Raw Material is of special interest at this time because the speculation regarding the new crop now being prepared for market.

This is the season of the year in which importers of gum arabic show special interest in this item as the new gum crop is arriving and being prepared for shipment to the consuming markets of the world.

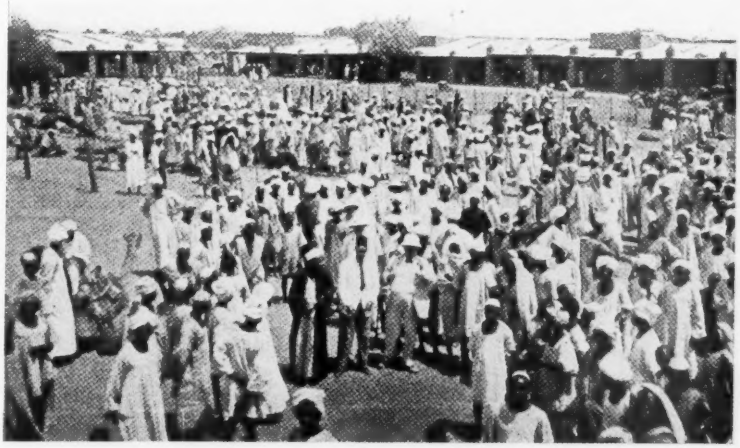
The use and trade of gum arabic go back to very early times. The word "gum" is derived from the ancient Egyptian "Kami" and came to us through Greek and Latin and subsequently the French of the Middle Ages.

Many of the most important uses to which gum is put nowadays have great antiquity. As an adhesive, gum is mentioned by Herodotus (5th Century, B.C.), the "Father of History," who tells us that gum was used generally by the Egyptians instead of glue. The use of gum in medicine is mentioned in medical papyri preserved in the museums of London, Berlin, Leipzig and Philadelphia, some of the prescriptions of which are declared to go back to the time of King Kheops who built the first pyramid about 3,000 B. C. It is also referred to in the medical works published between 450-350 B. C. under the name of "Hippocrates," the Father of Medicine, where the use of gum in throat pastilles has come down to us through Arabian physicians. Even the modern use of gum in confectionery is said by Skuse to have probably originated "in the early days when medicated syrups, thickened with gum acacia, were employed to relieve affections of the throat and lungs. The confectioner borrowed the idea from the old-time apothecary, but substituted palatable ingredients for the nauseous drugs, retaining the basis of sugar and gum and adapting it to his special needs."

In modern times we definitely know there were regular caravans bringing gum from the Sudan to Cairo and Alexandria for shipment to Europe during the eighteenth century onward, but the trade has been enormously developed since the conquest of the Sudan by Anglo-Egyptian forces under Lord Kitchener in 1898.

A CARAVAN LADEN WITH GUM ARABIC

*Photos and story courtesy Messrs. Boxall & Co., Khartoum.



TENDELTI, A PROSPEROUS CENTER CREATED IN A FEW YEARS BY THE MARKETING OF GUM

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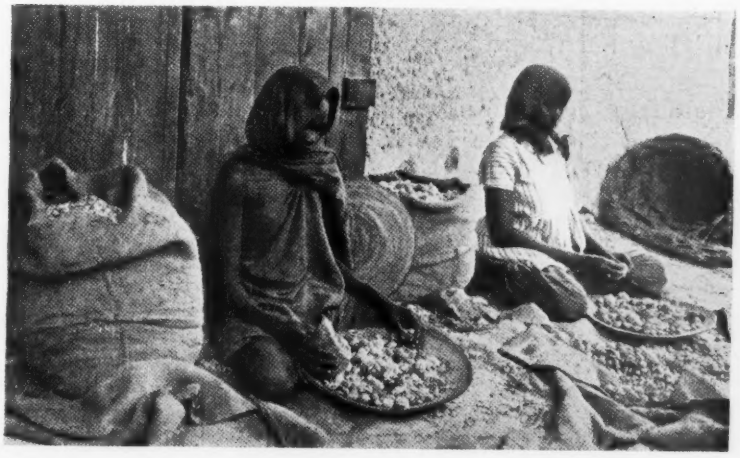
The laying of the railway connecting Egypt to Khartoum by which Kitchener brought up supplies for his troops, the subsequent building of Port Sudan in 1905 and the railway therefrom giving shorter access to the sea plus the railway extension from Khartoum to El Obeid in 1912, and only recently to Gedaref, opened up the vast areas of acacia country in which gum arabic is now tapped and collected.

The commercial capital as well as the official capital of the Sudan is Khartoum, the city of Gordon and of Kitchener, where the Blue and the White Niles meet and where the palatial offices of the Government and the more modest premises and residences of commercial firms are surrounded with trees and green lawns won from the waterless desert. Khartoum is the hottest city in the world as befits the capital of the country of the acacia. It is unpractical to run a ramified business from headquarters established anywhere else in the Sudan. The banks and even the shipping companies have their head offices at Khartoum—five hundred miles from the sea and five hundred miles from El-Obeid.

EL OBEID, A THOUSAND MILES FROM PORT SUDAN. EXAMINING GUM BEFORE PURCHASE IN MARKET.

The important gum auctions have followed the railway just as the railway has penetrated the principal gum districts, but habitation in the Sudan is dependent on wells or storage of water in pools and hollowed out trunks of "tebeldi" trees, while there are areas where melons alone make life possible to man and beast. The first important auction on the Khartoum-El-Obeid railway line is at Tendelti. Then comes Um Ruaba, Rahad and El-Obeid, made famous as the gum market throughout the world. El-Obeid auction sets the local prices of gum arabic in every market both in the Sudan and throughout the world in general. Daily the question is, "What are the arrivals and what are the prices at El-Obeid?" Everyone who has any pretence to gum business at all bids at the auction at El-Obeid and the arrival of the daily telegram at Khartoum gives a never failing thrill. The prospects of increasing or decreasing arrivals, the tendency to loss or profit on sales, the strength or weakness of competitors—all need watching and many have beheld ruin in those telegrams, for the history of the gum trade is as strewn with wrecks as is the desert highway with skeletons.

The two important gum auctions on the Kassala Railway, which turns East just as the Kordofan line turns West of Kosti Bridge on the White Nile, 237 miles below Khartoum, are Gedaref and Kalaat-en-Nahl. The gum arrivals are equal to Kordofan in quality but the markets have most crude arrangements in contrast to those of Kordofan. When you bid for gum in Gedaref and Kalaat-en-Nahl you bid for one of four heaps of miscellaneous skins and bags, but you not only bid for what you see but all the gum that arrives that day after the auction is closed. Sometimes when you have bought, an hour later somebody may arrive to say there is no auction at all unless you pay a higher price! However, improvements are in the offing. That the native is friendly to a properly organized market is to be seen from the success of the market at El-Obeid. The progress which some fear he will not stand, the native himself seems to welcome.



GUM CLEANERS AT EN NAHUD. NOTE THE ROUGH STONES FOR KNOCKING OFF THE BARK.

Gum arabic is a semi-wild product, the exudations of the acacia verek which are increased by tapping, i. e., wounding the tree. The gum tree has to do all its growing during the light rains between May to October because with the fierce heat of the waterless desert it lapses into a state of coma or suspended activity. It is as the leaves wilt and the tree looks as if it were dying that the gum is formed just beneath the bark to keep the tree moist and alive throughout the drought which the following rainy season brings to an end. If you plant a gum tree near the Nile or elsewhere near water it will not produce gum. This straggling, unimportant looking overgrown gooseberry bush is one of nature's wonders. Keep it comfortably moist and cool and it will produce no gum. There in the waterless desert, subject to dry, crack-

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ing, scorching winds, it turns its natural starches into gum, a substance which holds more water for its bulk than any substance known. Put in an oven and baked for four days at a temperature of 120° F. gum was found still to contain 7 to 8 per cent of moisture and complete desiccation could not be attained even at the boiling point of water—212° F.

With the damp winds that blow across Africa from the Gulf of Guinea and herald the rains the gum trees begin to put forth leaves and gives no more gum. Then come the actual rains and the erstwhile desert is carpeted with wonderful flowers. The acacia bursts forth into a mass of feathery green interspersed with yellow blooms, but, more important to the gum merchant, it grows and stores the starch and other material necessary to form gum to hold that moisture which keeps it alive when the cycle turns once more to death and desolation and when, behold a gum season once more!

EN NAHUD MARKET. One hundred and forty miles by road, south-west of El Obeid, now the railroad terminus. Note the Tebeldi tree. Similar trees are hollowed out and used for storage of water during the dry season.

CITRUS OILS

Featured by the advance in California Lemon and the decline in Orange.

The feature of the market was the long expected advance in California lemon oil. Sellers are now asking 60c per pound and at this level the price is regarded as very attractive when compared with the quotations prevailing on the Italian oil. Domestic producers had reduced the price some time ago so as to encourage a greater use of the article and since it has been meeting with the demand desired they now feel that production costs really warrant such an upward movement in price.

Coincident with the advance in domestic lemon oil, the Californian producers of orange oil reduced prices 10c per pound to the basis of $2.00. It is believed that there will be ample quantities available to meet the trade's requirements between now and the new crop movement and in view of the easier position of the orange oil market as a whole, holders are rather anxious to reduce the quantity of oil remaining unsold.

African orange oil continues to meet with a favorable reception from those manufacturing consumers who are most interested in odor and lasting qualities. As this oil possesses these qualities it has been increasing in demand since its introduction to this market several years ago. The price of $1.25 per pound is favorable when compared to the Italian oil which is also used by perfumers. The Italian oil is now selling for $1.60 per pound.

There were some reports in the market to the effect that the competition from African oil was partly responsible for the reduction in the Domestic grade of orange oil but this was found not to be entirely true as there is said to be a definite place for both these oils. Californian oil has a particularly fine flavor and is much in demand for this quality by manufacturers of hard candy and beverages, whereas the African oil with its lasting odor is mostly desired for perfumes.

The African orange oil is produced as a wild crop by natives who collect the fruit and press out the juice whenever they feel inclined to do a little work. Because of this condition supplies heretofore have been somewhat irregular but a better system of production is gradually being worked out to insure not only a dependable flow of oil to the shipping markets but a quality control as well.

MENTHOL

Bullish Tendencies Noted.

A firmer tendency has developed in the spot menthol market. While prices remain at the previous levels of from $3.30 per pound in case lots certain factors who previously felt that statistics did not warrant a further advance are now more inclined to take a bullish attitude.

It had been the opinion of many importers that the huge Japanese crop of 1933 was moved at the expense of overstocking the consuming markets. While this is true it is also true that dealers and importers are very short on supplies so that there will be replacement buying on the part of these factors which will have the tendency to further strengthen the primary market.

Available production figures for menthol indicate that the 1934 output for all Japan was about 1,248,000 pounds, of which 838,000 came from Hokkaido and the remaining 410,000 pounds from Honshu and other islands. Bad weather in Hokkaido was responsible for a decline in production, according to a report from Consul Howard Donovan, Kobe, Japan. Barring unfavorable weather, the 1935 crop will probably be larger than that of 1934, he states.

On November 1 it was estimated that the total combined stocks of crude peppermint oil and menthol crystals in all Japan did not exceed 1,040,000 pounds, a figure below normal for this time of year.

Cooperative associations and speculators were active during the season, the cooperatives loaning money to producers whenever the price of crude oil went down.

Exports of menthol crystals registered a sharp increase during the first 9 months of 1934, the total amounting to 554,000 pounds as compared with 369,000 pounds during the corresponding period of 1933. Low prices during the last quarter of 1933 and the first part of 1934 stimulated export demand, and considerable purchases were made for shipment during the first quarter of 1934.

Exports of menthol crystals, according to countries of destination, during the first 9 months of 1933 and 1934 are shown in the following table:

Exported to	*Jan.-Sept. 1933* Quantity pounds	Value Yen
United States	202,000	1,697,000
France	86,000	682,000
Straits Settlements	18,000	166,000
All Others	63,000	528,000
Total	369,000	3,073,000
	Jan.-Sept. 1934	
United States	282,000	1,876,000
France	107,000	660,000
Straits Settlements	17,000	81,000
All Others	148,000	971,000
Total	554,000	3,588,000

Exports of peppermint oil from Japan increased nearly 60 per cent to 579,000 pounds in the first 9 months of 1934, as a result of larger shipments to England, France and Germany.

Ephedrine Alkaloid Anhydrous (99%-100%)

Melting Point: 33.8° to 35° C.

Oil Solubility: over 1% in light mineral oil.

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LAVENDER OIL

Previous low prices result in scarcity

Previous low price ranges has discouraged production of lavender flowers to such an extent that a serious shortage of oil is likely before another crop can be collected and made ready for the market sometime in October or November of 1935.

Already prices in New York reflect the conditions prevailing in the primary market. There is little or no oil available below $3.75 per pound and most of this is a grade suitable only for the making of soap. The better quality used in various cosmetic preparations range up to $6.50 per pound. There is also an oil of special quality which sells for $10.50 per pound but there is not more than 2 or 3 kilos of this material available.

At one time the lavender flowers grew wild in the Grasse region of France but during the past few years prices paid the collectors were so low that this wild growth has been practically destroyed by neglect. Animals in the framing sections were permitted to feed upon the flowers and soil erosion is also said to have destroyed a great many of the plants.

The production is now from cultivated plants and of course this adds greatly to the cost. Certain producers in the Grasse region have gone in for cultivation of Lavender with the intention of creating stability in price by a more uniform production. While an increase in cost through this method was anticipated it was rather surprising how sharp the increase actually was. This increase must be passed along to the ultimate consumer. It is reported as not unlikely that the soap market will be lost to lavender entirely should the present price tendency go much further.

At any rate with the 1934 crop of oil just available already reported scarce it is more than likely that price trends will be upward as the next crop is as far away as next Fall.

Consumers may be turned to oil from sources other than France should prices continue upward. Italian production is said to be of increasing importance with a good quality oil available from the Italian Alps regions. A district especially rich is in the Tenda Pass and Briga. The temperature is relatively mild in winter, and elevation (800-2,000 metres), as well as the composition of the soil are conducive to the cultivation of true lavender, from which the Italian production of oil is derived. The Italian oil is said to be equal to the French in ester content. The aroma is finer fresher and more flowery than the best French oil.

LAVENDER PLANTATION NEAR GRASSE, FRANCE

DEMAND FOR PSYLLIUM SEED CONTINUES TO WANE. This once popular laxative losing its appeal.

The wave of popularity that swept the laxative psyllium seed into a prominent position among the crude drug imports of the United States several years ago, continues to wane as demonstrated by the decline in importations.

The exports of psyllium seed to the United States from the Marseille area of France invoiced through the United States Consulate during the years 1930 to 1933 and during the first 10 months of 1934 were as follows:

Year	*Pounds*	*Value in Dollars*
1930	2,026,596	$464,445
1931	1,180,081	229,837
1932	1,287,160	154,421
First 10 mos.		
1933	1,000,991	85,433
1934	1,135,473	88,886

Practically the entire French psyllium crop is produced in the Marseille area, and 90 per cent of this crop is exported to the United States. The 1934 harvest was estimated at 170 to 250 metric tons. The smaller figure was reported by the president of the Syndicate des Producteurs de Psyllium, based on a survey of the quantity of new psyllium seed handled by all the threshers of this product in the region. The prices prevailing since December 1933 and the large carryover from previous harvest account for the reduced plantings.

As seedlings for the 1935 psyllium crop are not transplanted until March, no estimate of the probable harvest during the coming year is possible. Growers claim the present price of 150 francs per 100 kilograms does not cover their costs, and the continued cultivation of psyllium would be based on expectations of a rise in price.

Total stocks, including the 1934 crop in the hands of growers at the close of October, did not exceed 1,000 to 1,200 metric tons, according to the best estimates available. A portion of this seed has been stored for over 3 years and has deteriorated because of dampness and damage by rodents. Part of this might be rendered salable by cleaning.

More startling than the decline in pounds imported is the sharp drop in the value of these importations. Whereas in 1931, 1,180,081 pounds were valued at $229,837 the imports of 1,135,473 pounds during the first 10 months of 1934 were worth only $88,886.

It is probably the decline in value of this item more than anything else has resulted from the sharp drop in consumption in this country. Like all laxatives, this is an item that requires continued exploitation. The low spot price of 9c per pound for the best black seed makes it impossible for importers to advertise this commodity extensively enough to the package people. Competitive conditions in the consumer market have also resulted in such a sharp decline in prices that it leaves no margin of profit for advertising to the general public.

IRISH MOSS—The supply of high quality pharmaceutical grades continued to be even more scarce than heretofore reported. Shippers in France were reported as having turned down offers, declaring there was no high grade material available for export to this country. Under the circumstances, prices here came close to being nominal. Ordinary quality material suitable for industrial purposes was in fair supply.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of The Drug and Cosmetic Industry, published monthly at Pittsfield, Mass., for October 1, 1934

State of New York, County of New York—ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Thomas R. Farrell, who, having been duly sworn according to law, deposes and says that he is the Editor of The Drug and Cosmetic Industry, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Drug Markets, Inc., 101 West 31 St., New York, N. Y.; Editor, Thomas R. Farrell, 101 West 31 St., New York, N. Y.; Managing Editor, none; Business Manager, Frazer V. Sinclair, 101 West 31 St., New York, N. Y.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given.) Drug Markets, Inc., Frazer V. Sinclair, Thomas R. Farrell.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

Thomas R. Farrell, Editor.

Sworn before me this 12th day of September, 1934, Joseph Cass, Notary Public.

My commission expires March 30, 1935.

VANILLA BEANS—The easier tendency noted in the shipment market for Bourbon beans a month ago continues into the current spot market with the result that prices have declined here. The new schedule of prices range from $2.65 per pound to $3.25 per pound according to quantity and quality.

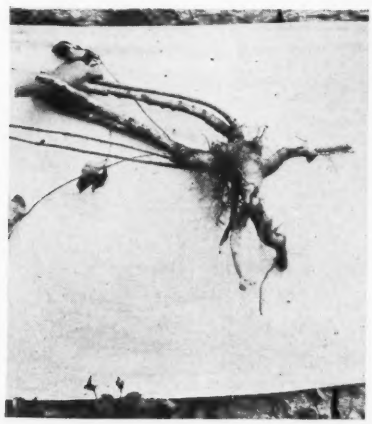
As it does not appear that this development will be of prolonged duration it might be advisable for manufacturing consumers to take special note of prevailing prices. Statistically this item is as strong as it was during the collection of the last crop when the shortage in both the new crop and carryover stocks first became apparent. The low prices that prevailed prior to and into the early part of 1934 had so seriously affected production that the last crop did not exceed 50 per cent of normal. More serious than this condition was the fact that the growing vines had been neglected to the extent that rehabilitation will take several years time so that the statistical position cannot be corrected until several succeeding crops.

The current weakness therefore is not one of statistics but merely an attempt on the part of certain shippers to stimulate the general ending of the year buying slump. It is generally reported that when a certain tonnage of beans is moved out of France a resumption to the higher levels will take place.

Mexican and South American beans failed to show new developments in price or otherwise.

TONKA BEANS—A further recession in price was noted to the basis of from $2.75 to $3.00 per pound. Increased competition on the arrival of additional stocks in the spot market was the reason.

STRAMONIUM—More than ample stocks and a light demand resulted in shading prices to the basis of from 14c to 15c per pound.



FRINGE TREE ROOT

ERGOT—According to the trade in Hamburg it was reported about the latter part of October 1934 that the ergot crops in Germany, Czechoslovakia, and Hungary were a failure. At no time during the growing season was rain plentiful, and the rainfall while the grain was in flower was small. In Germany the crop was so insignificant that the farmers did not take the trouble to gather the small harvest. Hamburg trade estimated that Russian production would be around 150 tons, Portuguese 25 tons, and Spanish 70 tons. Poland has a short crop, but Polish ergot may not equal the standard required in the United States.

Stocks of ergot were low in Hamburg, and reliable sources stated that less than 8 tons of Spanish ergot were in stock. There were approximately only 1,400 kilos of Portuguese ergot on hand. In the middle of October the best grade of Spanish and Portuguese ergot were held in Hamburg at 225 reichsmarks, spot, per 100 kilos, and 35c a pound to the United States.

There was no Russian ergot on the Hamburg market. Sales of ergot to the United States have been consumated in the past several weeks only on a barter basis. Small lots have been sold in exchange for herbs and such products as may be disposed of by drug exporters. (Consul John G. Erhardt, Hamburg).

PYRETHRUM—Production in Japan during 1934 has been estimated at 8,000 tons. The market during the first quarter of 1934 was characterized by a sharp rise in price in March and April due to an abnormally short supply. In May 1934, prices were over 100 yen per picul (132.27 pounds), but during June, July, and August they declined to 81 yen per picul as a result of the Hokkaido crop coming on the market. Before the end of August the price rose to 92 yen per picul on account of an active demand in the American market. Liquidation by weak holders and declining demand caused prices to drop to 87.50 yen in September and to 80 yen in October. On November 9, however, the price was 85 yen per picul.

Stocks of about 3,700 tons on November 1, 1934, were below normal. The estimated domestic consumption during the period from July to September inclusive was 800 tons.

The United States was by far the largest buyer taking in 1933 some 6,626,000 pounds valued at 3,569,000 yen and in 1934 approximately 7,827,000 pounds valued at 4,734,000 yen.

Pyrethrum flower production in Yugoslavia rose from 529 metric tons in 1932 to 652 tons in 1933 and 694 tons (estimate) in 1934, according to the Yugoslav Bureau for Promotion of Foreign Trade.

The United States is also the largest buyer of pyrethrum from Yugoslavia taking in 1932 about 295,600 kilos and in 1933 about 306,744 kilos. Importations for the first 6 months of 1934 amounted to 54,972 kilos.

CHAMOMILE FLOWERS—Very little new business is passing in this item. The spot market price is well maintained at from 29c to 31c per pound for Hungarian flowers, however because of the fact that underproduction this year was the result of the serious drought during the growing season in the Middle European states.

Although Germany has a notable production of chamomile flowers distinguished by their high quality, total German output is insufficient to meet the national consumption needs. One reason for the insufficiency is the volume of German consumption, probably transcending that of any other country. German consumption of chamomile tea alone accounts for around 250,000 kilograms annually.

The United States depends, therefore almost entirely upon the Hungarian crop for its source of supply. There are some Roman flowers imported but only to a negligible extent. Until a new crop of Hungarian flowers can be harvested late in the summer of 1935, this item is most likely to maintain its firm aspects.

SUMATRA GUM BENZOIN—Advances to the basis of from 19c to 21c per pound under the influence of buying that absorbed all the lower priced spot stocks available.

Nice Exports Less Oils

Seasonal dullness was evident in the trade of the Nice District in essential oils and other perfume materials during the third quarter of this year, according to a report by the Department of Commerce. The industry continued to reflect the difficult economic conditions prevailing in world markets. Sales to the United States fell off considerably compared with the corresponding period of the preceding year.

Hot weather prevailed generally in the Alpes-Maritimes and the adjoining Departments of France during the summer of 1934, and relatively little rainfall in many producing sections resulted in injury to all vegetation.

It was reported that only small stocks of the principal products were in the hands of the producers at the opening of the summer harvests.

Exports of essential oils and other perfume materials from the Nice District to the United States in the third quarter of this year had a value of $172,530, compared with $224,817 in the corresponding period of 1933, a decrease of $52,387. Owing to the fact that sales were made in francs and that the exchange value of the dollar was higher in 1933, the decrease was even greater than indicated.

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Prices

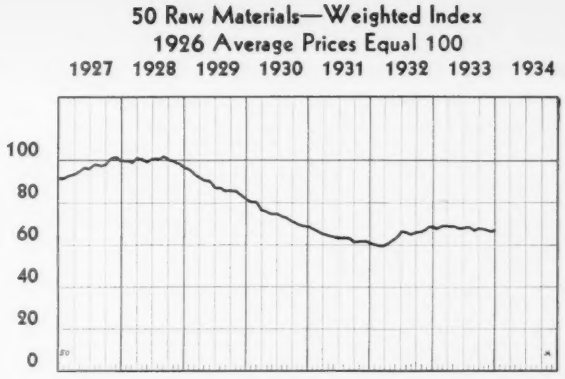
Commodity prices changed little for the first month of the new year: the index for 50 products increased to 67.3 from 67.0 in December.

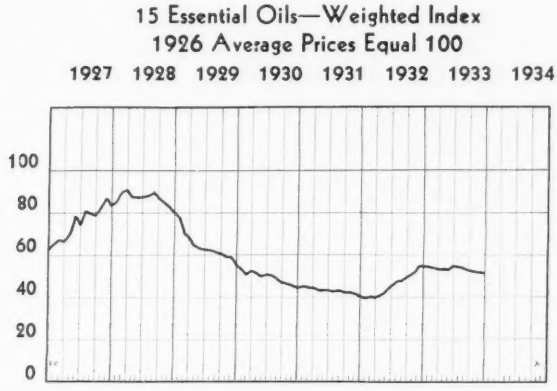
The change in the medicinal chemical index, from 74.7 to 75.1 was entirely due to the change in the price of acetylsalicylic acid, which was raised from 65 cents to 70 cents.

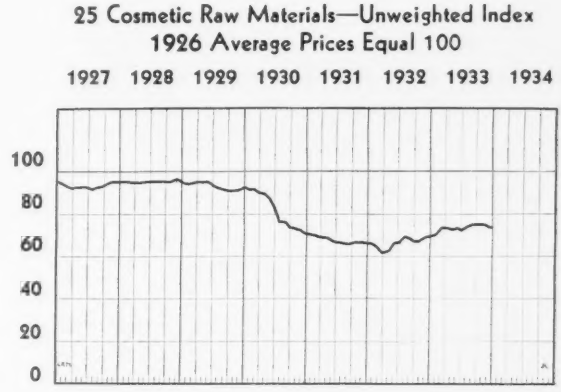
Only one item changed in the botanical index, ipecac rising to 80 cents. The index increased from 67.7 to 67.9.

Six changes among the components of the essential oil index resulted in the slight decrease from 52.1 to 52.0. Bergamot increased 5 cents to $1.50; cananga jumped from $2.15 to $2.50; cassia was marked up 7 cents to $1.25; citronella fell off 1 cent to 36 cents; peppermint dropped from $3.20 to $3.10; sandalwood fell from $5.75 to $5.50.

The cosmetic raw material index declined slightly from 73.7 to 73.5. Balsam Peru fell back to $1.95 while lanolin rose 1 cent to 17 cents.







ACID ACETYLSALICYLIC—The first price change in some time was noted in this item. The higher range was from 70c to 75c per pound.

EPHEDRINE—Competition forced lower quotations. The new schedule in 100 oz. lots is: Alkaloid $1.25 per oz., hydrochloride $1.00 and sulfate $1.00 per oz.

EMETINE HYDROCHLORIDE—Quotations were advanced to from $16. to $17. per oz. the movement reflecting higher production costs.

CAFFINE CITRATED—Lower by 5c per pound. The new schedule range was from $1.75 to $1.80 per pound.

LACTIC ACID—U. S. P. lower at from 45c to 50c per pound. It is reported the reduction was induced by competition from material originating in Holland.

IPECAC—Dealers advanced price to cover import costs. The new range was from 75c to 80c per pound as to quantity.

DAMIANA—Market here became somewhat easier under the influence of a return of offering from spot stocks. The lower levels ranged from 40c to 45c per pound.

PAPAIN—Powder continued competitive and was reduced further to the basis of from $3.00 to $3.25 per pound. In spite of this condition the primary market is said to have remained firm.

HYDRANGIA—The market here was fully 7c to 8c per pound and while interest from manufacturing consumers was not active the situation was one of firmness based on cost to replace.

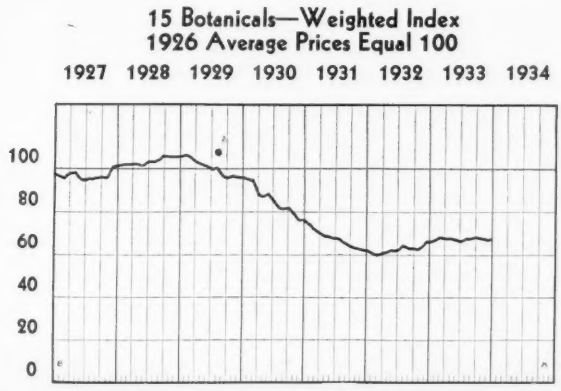
CANANGA—Dealers revised views and the market was consequently higher at from $2.50 to $2.60 per pound for native and from $2.95 to $3.05 for redistilled.

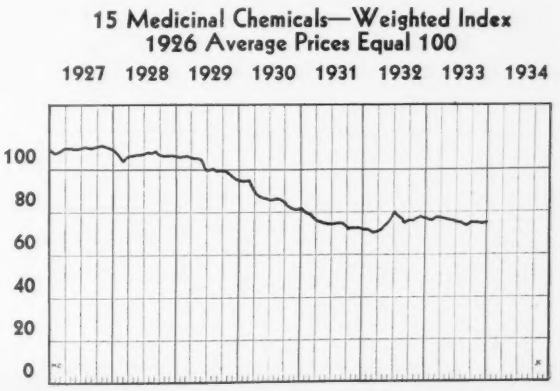
BIRCH TAR—Rectified advanced to 70c per pound, reflecting absorption of goods formerly held at lower levels.

BERGAMOT—Slightly higher. Minimum quotations now $1.50 per pound with range as to brand and dealer up to $1.70.

CEDARWOOD—Moved only in a small way with result that prices eased to basis 24c to 28c per pound.

HELIOTROPIN—Market for this item was substantially higher because of the advancing tendency of safron. The new range for prompt delivery was from $2.20 to $2.40 per pound as to quantity.





The New Deal

(*Continued from page 25*)

bills and be acceptable to all branches of the industry as well as to the government officials.

Points on which the government will most likely insist are: control of advertising; right to rule off market products which are dangerous to health; inclusion of cosmetics under the act; inspection of factories with possible permit system; abolition of the phrase "false and fraudulent" from the act so that it is not necessary to prove that the offender *intended* to deceive; a method of preventing the marketing of remedies for diseases which are not believed to be curable by the use of any known remedies.

Points on which the industry will insist are: protection against one man rule on questions of medical opinion; limitation of multiple seizures so that such seizures will only obtain in cases of products dangerous to health or grossly deceptive; limitations upon the Secretary of Agriculture in writing regulations; publication of new regulations so that the industry is kept informed of changes in enforcement methods; right to obtain immediately part of original sample upon which the government bases its case.

Particularly interesting to watch as the situation unfolds during the year ahead, will be the various views of the many branches of the industry and the attitude which the government takes toward the industry. The government is said by some to have changed its attitude of complete distrust of the industry which existed when the Tugwell Bill was introduced. This bill, it will be recalled, was written without consulting the industry although the industry requested the privilege of reviewing the act and offering suggestions before the act was introduced. Now, it is said, the government believes that it is wise to cooperate with the industry so as to prevent the united opposition that sprung up against the Tugwell bill, and also to avoid the introduction on behalf of the government of any such bill as the original Tugwell Bill which was obviously unfair to the industry and public on many points.

Of particular interest during the application of the New Deal is the activity of the Federal Trade Commission. For various reasons, all of which involve self-protection on the part of the F.T.C., the activities of the Commission are increasing. First we have the attacks of the Commission on advertisers. Only recently the Commission successfully went after the Bayer Company on their claims for Aspirin which have been modified. Now the Commission has cited St. Joseph's Aspirin for similar reasons and Plough, Inc., owners of St. Joseph's Aspirin are busily engaged defending themselves. Thus the Commission strikes at the plan of the Department of Agriculture to include advertising control in the new Food and Drugs Act. Thus far, however, the Commission has taken no step to remove the main objection on the part of many to F.T.C. control of advertising, namely the fact that the F.T.C. can act against advertising only when it is unfair as concerns a competitor. Many insist that the law must be such that the public as well as industry can be protected against unfair and deceptive advertising. Rumors are afoot to the effect that the F.T.C. hopes to have amendments to the Federal Trade Commission Act which would correct this situation and so make unnecessary the inclusion of advertising control in the revised Food and Drugs Act.

In another way the F.T.C. has been protecting itself against invasion of its duties by other government agencies, and that is in acting upon some of the duties which many thought had been taken over by the NRA. Within the past month we have seen the wholesale division of the industry hold a Fair Trade Practice Conference with the F.T.C. and obtain a set of fair trade practices endorsed by the Commission and the industry. This is in the face of the fact that the wholesale division of the industry has been unable to agree with the government on an NRA code, and follows up the fact that the F.T.C. had been investigating the National Wholesale Druggists' Association following charges made against it at a code conference of trying to set itself up as a monopoly.

Likewise has the F.T.C. been active in citing manufacturers who have been attempting to maintain their prices. The case of the Armand Company is again in the courts; Bristol-Myers & Co. have been cited, and probably more will follow. Therefore, for good or bad, it seems likely that we will hear more from the F.T.C. as the application of the New Deal to this industry continues.

Production Forum

(*Continued from page 81*)

Envelope Filler

The last time we saw Harry Sanders he described a method of filling envelopes with pills and tablets which seemed pretty good to us. He made the machine while he was free lancing in South America. The machine consisted of a power driven rotary table, slightly conical in shape with a small feed hopper in the center. Around the edge of the table were punched a certain number of holes in groups corresponding to the number of tablets or pills wanted in each envelope. The tablets fed slowly down out of the hopper to the table and gradually were worked toward the outer edge. They were held back by means of baffle plates so that an excessive number could not pass into the perforated section of the table. The tablets which did get into the feed section were rolled around by means of baffle brushes so that they fell into the holes provided for them. Beneath the perforated section of the table there was a solid plate so that the tablets could not fall through. This plate was slotted at the point where the envelopes were filled and under it at this point were a couple of tapered hoppers, which received the tablets when the perforated plate carrying them came into position above the slots. The operator opened two envelopes with a forward motion of her hands which at the same time tripped the discharge gate. The speed of the table was governed by the speed of the operator and she had to be pretty fast to keep two charges of tablets from falling into the same hopper.

Drug Extraction

(*Continued from page 38*)

atmospheric concentration methods. The time cycle is about three days for extraction, concentration and solvent recovery.

If it were possible to drain or otherwise remove all of the first wash, the successive washes would be unnecessary and the time required for extraction and concentration would only be a matter of a few hours, probably not more than five or six. The time-determining factor is the interval required for the various washes to be drawn off. On a theoretical basis the amount of extract in each wash is proportional to its ratio to the original volume. For instance if 300 gallons of solvent are put on the drug and 200 gallons are taken off in the first wash, then the first wash theoretically contains two thirds of the extract. Assuming the same run-off on the second wash then this will contain two ninths and so on until virtually nothing is left. Usually four washes suffice, the last being used for the No. 1 wash of the next lot of drug.

It is obvious, therefore, that if a way can be found to remove ninety five per cent or more of the total amount of solvent put on at the beginning, there would be so little extract left in the drug that as a general rule it wouldn't be worth bothering with and only one wash would be necessary. This leads then to a consideration of high speed means of separating percolate from the marc. We have seen one or two instances in connection with vanilla beans and also pyrethrum flowers where pressure filters and hydraulic presses were used to squeeze the percolate out of the marc. Either of these methods require considerable time, and unless the pressure utilized is very great, they will not be as effective as centrifugal force, a method of separation upon which we are now working.

This method embraces the idea of using a vacuum extractor with an agitator and also a continuous centrifugal, appropriately designed to prevent the loss of solvent. It is our purpose to hook both together so that the extractor discharges into the centrifugal. Preliminary experiments have shown that ninety-five per cent separation is easy, to secure and with harder drugs it may be possible to do better than this. Such a process will enable us to grind the drug very fine, a principle in which we have always believed, because it is obvious that the finer the particle size of the drug the quicker will it yield its soluble constituents. Up to now, however, it has not been practical to grind very fine because of the delay in draining time. After all, the whole process of extraction is one of dissolving the active principle of the drug in an appropriate solvent and off separating the solution from the spent marc. By using a combination vacuum-centrifugal process this can easily and quickly be done and the residual marc dried to such an extent that solvent recovery may be unnecessary.

Approaching the problem from a different angle, W. H. Jackson has invented a self-contained vacuum system from which remarkable results have been obtained in connection with the extraction of vanilla beans. What formerly required days Jackson has done in a matter of a few hours. This method consists in grinding the beans under vacuum in the menstruum, reducing them to a sludge which is then pumped through a filter press. The unit consists of a specially designed tank containing a stellite knife propellor which rotates at a speed of several thousand rpm. The strings are cut off the bundles of whole beans, and as fast as they can be dumped into the tank, they are reduced to a size equivalent to that usually used in ordinary extraction methods. The cutting is done in the alcohol and the heat generated by the velocity of the mixture is absorbed by cooling coils located in the tank. With this method the beans are chopped up to about a number eight mesh in ten minutes. The mixing is continued for about five hours and the particle of vanilla beans are reduced by attrition against each other and against the wall of the tank until they are so small that the batch looks like soup. Even the fibrous, hard particles are reduced to a very fine state, but they retain their fibrous character and thus form a good filter bed in the plate and frame filter.

Samples of extract examined after twenty minutes of mixing showed a strength equivalent to that obtained formerly after several days of maceration.

The Jackson system will be improved and arrangements are being made to make the entire unit self-contained. This is to be accomplished by adding an upper section containing a series of cylindrical screens. In each of these screens there is a rubber tube for pressing the marc. The whole unit, of course, will have provision for drawing a vacuum on it and a suitable condenser for recovering solvent from spent marc.

It will be loaded as before, but instead of pumping the sludge into a filter press, it will be pumped up into the screens in the upper section. The marc will then be tightly squeezed against the screens by pumping water into the special rubber tubes, causing them to distend and press the marc at sufficient predetermined pressure. The clarified extract will be run out of the lower section; steam will then be run into the jacket and a vacuum drawn on the unit to recover the alcohol in the pressed marc. Although there are still some problems to be worked out in regard to the upper section of this unit, the work accomplished by the grinding and extraction section, which has already been utilized on a production basis, and the results obtained from a small scale model of the completed unit, are sufficient to justify the prediction that either by one or the other of the means described herein or a possible combination of both centrifugal and Jackson methods, the day is not far off when we shall be able to grind, extract and concentrate a batch of any crude drug within a normal working day.

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